

DOCUMENTS DEPT.



BOOK NO.

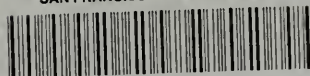
ACCESSION

375.Sa57 100

17324

NOT TO BE TAKEN FROM THE LIBRARY

SAN FRANCISCO PUBLIC LIBRARY



3 1223 03565 0036

COURSES OF STUDY

FOR THE

PUBLIC SCHOOLS

OF THE

CITY AND COUNTY OF SAN FRANCISCO

CALIFORNIA

1900

THE MURDOCK PRESS
SAN FRANCISCO

N^o 375. Sa 57¹⁰⁰

At a regular meeting of the Board of Education for the City and County of San Francisco, held on Wednesday, July 25, 1900, on motion of Director Mary W. Kincaid, seconded by Superintendent of Schools R. H. Webster, the following resolution was adopted :—

“ *Resolved*, That the following Courses of Study be and are hereby adopted for a period of four years; provided,— that the adoption of these Courses of Study does not carry with it the necessity of retaining the text-books now in use beyond the expiration of the contracts for such books.”

17324

9

YAHARRI OLUBO 18.8

BOARD OF EDUCATION.

CECIL W. MARK, PRESIDENT.

MARY W. KINCAID,

JAMES DENMAN,

JOHN B. CASSERLY.

REGINALD H. WEBSTER,

SUPERINTENDENT OF SCHOOLS.

TABLE OF CONTENTS.

	Page
INTRODUCTION	11
TO PRINCIPALS AND TEACHERS	15

COURSES OF STUDY FOR DAY ELEMENTARY SCHOOLS.

I. READING AND LITERATURE:

1. INTRODUCTION	25
2. THE STUDY OF LITERATURE	28
3. ON TEACHING READING	29
4. OUTLINE OF INSTRUCTION:	
(a) <i>First Grade</i>	31
(b) <i>Second Grade</i>	39
(c) <i>Third Grade</i>	42
(d) <i>Fourth Grade</i>	43
(e) <i>Fifth Grade</i>	44
(f) <i>Sixth Grade</i>	44
(g) <i>Seventh Grade</i>	45
(h) <i>Eighth Grade</i>	46
5. LISTS OF SUPPLEMENTAL READING	48
6. SELECTIONS TO BE READ TO THE PUPILS	52
7. SELECTIONS FOR MEMORIZING	57
8. HOME-READING LISTS	63
9. REFERENCES	73

II. HISTORY AND CIVIL GOVERNMENT:

1. INTRODUCTION	75
2. FUNDAMENTAL PRINCIPLES	76
3. ILLUSTRATION OF METHODS:	
(a) <i>Primary Grades</i>	78
(b) <i>Grammar Grades</i>	79
4. TOPICAL STUDY	83
5. SCHOOL LIBRARY OF U. S. HISTORY	83

II. HISTORY AND CIVIL GOVERNMENT — *Continued.*

6. OUTLINE OF INSTRUCTION:

(a) <i>First Grade</i>	85
(b) <i>Second Grade</i>	86
(c) <i>Third Grade</i>	86
(d) <i>Fourth Grade</i>	89
(e) <i>Fifth Grade</i>	91
(f) <i>Sixth Grade</i>	92
(g) <i>Seventh Grade</i>	95
(h) <i>Eighth Grade</i>	100

7. REFERENCES	105
---------------	-----

III. GEOGRAPHY:

1. INTRODUCTION	107
-----------------	-----

2. OUTLINE OF INSTRUCTION:

(a) <i>First Grade</i>	110
(b) <i>Second Grade</i>	111
(c) <i>Third Grade</i>	113
(d) <i>Fourth Grade</i>	116
(e) <i>Fifth Grade</i>	120
(f) <i>Sixth Grade</i>	127
(g) <i>Seventh Grade</i>	135
(h) <i>Eighth Grade</i>	138

3. REFERENCES	140
---------------	-----

IV. LANGUAGE STUDY:

1. INTRODUCTION	143
-----------------	-----

2. OUTLINE OF INSTRUCTION:

(a) <i>First Grade</i>	145
(b) <i>Second Grade</i>	148
(c) <i>Third Grade</i>	151
(d) <i>Fourth Grade</i>	153
(e) <i>Fifth Grade</i>	155
(f) <i>Sixth Grade</i>	159
(g) <i>Seventh Grade</i>	161
(h) <i>Eighth Grade</i>	164

3. REFERENCES	167
---------------	-----

V. SPELLING AND WORD ANALYSIS:

1. INTRODUCTION	168
-----------------	-----

2. OUTLINE OF INSTRUCTION, BY GRADES	170
--------------------------------------	-----

VI. ARITHMETIC:

1. INTRODUCTION	175
2. RELATED NUMBER WORK	178
3. OUTLINE OF INSTRUCTION :	
(a) <i>First Grade</i>	185
(b) <i>Second Grade</i>	187
(c) <i>Third Grade</i>	189
(d) <i>Fourth Grade</i>	191
(e) <i>Fifth Grade</i>	192
(f) <i>Sixth Grade</i>	194
(g) <i>Seventh Grade</i>	196
(h) <i>Eighth Grade</i>	197
4. REFERENCES	198

VII. NATURE STUDY AND HYGIENE:

1. INTRODUCTION	200
2. OUTLINE OF INSTRUCTION, BY GRADES	201
3. REFERENCES	205

VIII. DRAWING 207

1. GENERAL INSTRUCTIONS	208
2. OUTLINE OF INSTRUCTION, BY GRADES	210

IX. MUSIC:

1. INTRODUCTION	219
2. GENERAL INSTRUCTIONS	222
3. OUTLINE OF INSTRUCTION, BY GRADES	222

X. VERTICAL WRITING (AND BOOKKEEPING):

1. INTRODUCTION	226
2. OUTLINE OF INSTRUCTION, BY GRADES	227

XI. MANUAL TRAINING:

1. INTRODUCTION	229
2. OUTLINE OF INSTRUCTION :	
(a) <i>Seventh Grade</i>	230
(b) <i>Eighth Grade</i>	231

XII. SEWING:

1. TIME AND ARRANGEMENT OF WORK	233
2. SPECIAL INSTRUCTIONS	234
3. MATERIALS	234
4. OUTLINE OF INSTRUCTION, BY GRADES	234

XIII. DOMESTIC SCIENCE:

OUTLINE OF INSTRUCTION, EIGHTH GRADE	236
--	-----

XIV. CONDUCT (MANNERS AND MORALS):

1. INTRODUCTION	238
2. OUTLINE OF SUGGESTIONS, BY GRADES	240

XV. CALISTHENICS 244**LIST OF BOOKS TO BE BOUGHT BY PUPILS 245****TIME SCHEDULE FOR DAY ELEMENTARY SCHOOLS 248****ADVANCED EIGHTH GRADE (1900 ONLY) 250****COURSES OF STUDY FOR EVENING ELEMENTARY SCHOOLS.****I. READING AND LITERATURE:**

1. INTRODUCTION	255
2. OUTLINE OF WORK, BY GRADES	256

II. HISTORY AND CIVIL GOVERNMENT:

1. INTRODUCTION	259
2. OUTLINE OF INSTRUCTION, BY GRADES	260

III. GEOGRAPHY 264**IV. LANGUAGE STUDY 267****V. SPELLING 276****VI. ARITHMETIC:**

1. INTRODUCTION	278
2. OUTLINE OF INSTRUCTION, BY GRADES	279

VII. PHYSIOLOGY AND HYGIENE 282**VIII. VERTICAL WRITING 283****IX. CONDUCT (MANNERS AND MORALS) 285****LIST OF BOOKS TO BE BOUGHT BY THE PUPILS 286****COURSE OF STUDY FOR THE DAY COMMERCIAL SCHOOL 291****COURSES OF STUDY FOR THE DAY HIGH SCHOOLS.**

I. THE LOWELL HIGH SCHOOL	295
II-III. THE GIRLS AND THE MISSION HIGH SCHOOLS	300
IV. THE POLYTECHNIC HIGH SCHOOL	302

COURSE OF STUDY FOR THE EVENING HIGH SCHOOL.

1. THE HUMBOLDT HIGH SCHOOL	307
---------------------------------------	-----

COURSES OF STUDY

. . . FOR THE . . .

DAY ELEMENTARY SCHOOLS

INTRODUCTION.

The Courses of Study which follow represent, in outline, the subject matter upon which promotion will be based. They naturally represent a minimum amount of instruction, and teachers are left at liberty in expanding the topics and broadening the work.

Each of the subjects indicated to be taught in the Day Elementary Schools has been outlined at length. This has been done for the purpose of giving teachers a more intelligent idea as to what is required and as to how to do the work. The aim has been to make it easier for teachers to follow the Courses of Study and reach satisfactory results.

The larger outlines do not represent more work to be done. On the contrary, there has been a decrease in the amount of work, considering the Course of Study as a whole, and the rearrangement of some of the courses to secure closer correlation of subjects and better to adapt the work to the capacity of children should give teachers still more time to do the required work.

The change from a nine-year Elementary School Course to an eight-year was found quite easy to arrange. The rearrangement of some of the subjects to secure closer correlation will effect quite a saving of teaching energy, and the elimination of repetitions and work not suited to the capacities of children will effect a still greater saving. The work as outlined for the eight grades involves only a gradual change, requiring, in some cases, two to three years for its completion. When the change is finally completed, the

work for the eight years will be still somewhat less than is attempted in the same time in neighboring cities.

A strong effort has been made to concentrate the work upon what may be called the fundamentals of Elementary Education,—a thorough training in the use of correct English; the developing of an appreciation for literature, and a habit of careful study; a thorough drill on the fundamental principles of Arithmetic; a good knowledge of the history and development of our country; the geography of America in particular, with a good general knowledge of the world; and the beginnings of a preparation for proper living in society, viewed from its broader aspect.

The Introductions to the different courses are intended to be brief discussions of the purpose of each study and of some of the principles involved in teaching it, and these should be studied carefully by every teacher. The references, given at the close of each course, contain the titles of a few very helpful articles and books bearing on the teaching of the different subjects.

A Course of Study of the kind outlined in the following pages should be studied as a pedagogical treatise, and not laid away in a desk only to be consulted once in a while to see how many more *pages* are to be covered during a term. Instead, no more profitable piece of work could be done by the principals and teachers in our schools during the coming year than to make a careful study of the course. The references should be read, and there should be monthly meetings of principal and teachers for the discussion of methods and aims.

All such discussions, however, should be constructive and not destructive. If teachers try to find fault, it will be an easy matter to pick the best Course of Study to pieces. The burden of improving a school system lies, not with the Board of Education, Superintendent, or Course of Study, but with the principals and teachers themselves. A Course of Study is only one of the many helpers.

It has been the aim to make this Course as much of a help as possible. In its interpretation teachers should be broad and liberal. If at any place the work seems too difficult, teachers should try to work up to it.

The Board of Education and the Superintendent wish to thank the teachers of the City for their many helpful suggestions, and particularly to thank the committees for the reports which they submitted. These have been found very helpful, and, wherever possible, the suggestions of the teachers have been used. The Courses for the High Schools and for the subjects having special Supervisors have been adopted with few changes.

TO PRINCIPALS AND TEACHERS.

ARRANGEMENT BY SUBJECTS.

The arrangement of the work by subjects instead of by grades has been made with the purpose of treating each subject as a whole. To one not accustomed to such an arrangement the work for any particular grade is, at first, a little harder to understand. This is as it should be. To read only the work indicated for any one grade, as the Fourth, is not likely to result in very intelligent teaching. The work of the Elementary School is a unity, and the grade limits are only artificial dividing-lines, arranged for the convenience of supervision. Other than this the grade limits have no significance, and intelligent teaching can not be done by a teacher who is not aware of the relations of the particular piece of work which she is teaching to that which has preceded and that which will follow,—what was the *purpose* of the preceding work, what is the purpose of the work she is to do, and what preparation it is expected to make for the work which is to follow.

Hence, every teacher in grade-work should read such courses as Reading and Literature, History, Geography, Arithmetic, etc., as a whole, following the reading with a text-book, if necessary, and then, after having grasped the subject as a whole, go back and read the outline for the particular grade in its relation to the whole. What is desired is that teachers study *the subjects* which they are to teach,—not merely certain arbitrarily arranged sections of the subjects.

CORRELATION.

A careful study of the courses will reveal the close correlation which it is expected teachers will make between the different sub-

jects. The arrangement of the subject matter is such that two or more subjects frequently fit into one another, to form one large subject. To separate each study from its relations to the other subjects and teach it only at a certain set time is not the way to get good results. Second Grade History and Language Study are one, and do not need separate times. One day the oral Language work can be a History lesson, another a Hygiene lesson, another a Geography lesson. Similarly, in Fourth Grade, the Geography, the Local History, the Civil Government, and the Language can be made to fit into one another so closely that they become one subject; at other times they will need to be separated. Again, in Sixth Grade, the History should be correlated at times with the Geography. The Courses of Study will be found to offer many opportunities for these correlations, and teachers should keep these in mind. Close correlation will result in good teaching and great economy in school time. In reading the different Courses teachers should notice the intended correlations.

FROM GENERAL TO INTENSIVE WORK.

The courses have also been planned with a view to working from quite general work in the First and Second Grades to intensive work of a particular nature in the Seventh and Eighth Grades. In each subject there is a gradual progression from the general to the particular, and this involves a gradual change in method on the part of teachers. During the first few years the great object is to lay certain broad foundations by forming certain habits of thinking and working, and to fix a good strong interest in school work. But as soon as a many-sided interest in studies has been awakened, and the ability to use a few tools has been acquired, the method should be changed and the pupils be led gradually to more and more intensive work, so that, by the time pupils leave the Eighth Grade, they will not only be able to take up the intensive work of the High School, but will also be prepared to go out into life and do something thoroughly, because they have been trained while in school to take up a piece of work and stick to it until something is accomplished.

One of the great wastes in Elementary School work is the lack of a graded method in teaching. Often Courses of Study repeat the work of one year in the next, under the mistaken idea that to repeat the same thing in the same way is the way to learn; more often teachers fail to make any gradation in method, and follow the same plan of teaching in the Eighth Grade as in the Fourth. A certain amount of repetition is good, but it should be repetition in a new form and after a more advanced method.

Pupils should be led gradually to more and more intensive study. While keeping the work within the range of their abilities, the pupils should be trained, through the medium of the school work, in the ability to take up a new piece of work and persevere in it until it is accomplished. To give this training involves a graded method and a course of study indicating material which will give such training. The latter it has been our endeavor to provide.

In emphasizing the importance of gradually leading up to intensive work, it is not meant that High School methods shall be brought down into the grades, but there should be a steady approach toward such methods as the methods of the Primary School are left behind.

RECITATION METHODS.

Another great waste of time is in improper methods of conducting a recitation. A properly conducted recitation should begin with a few quick, searching questions which will center the attention of pupils at once on the work and at the same time call up in review the pupils' previous knowledge and put it in condition to receive and assimilate the new truth as soon as it is presented. A recitation should have a definite aim, both to the pupils and to the teacher. Something should be laid out to be accomplished, and the work of the period or of the week should be directed toward a definite end. The recitation should be made concrete and vivid by the use of illustrations, questions, supplemental readings, etc., and then out of these details which have been presented by the pupils and teacher there should be drawn up, as a result of well-framed questions on the part of the teacher and thinking on the part of

the pupils, the truth or principle or generalization the teaching of which has been the object of all the previous instruction. When this truth or generalization is once arrived at, it should be applied in the solution of problems or in the recognition of the truth or principle as applied to other fields. Teachers will receive much help from such a book as McMurry's *Method in the Recitation*.

TEACHING PUPILS HOW TO STUDY.

In every grade a certain amount of time should be reserved each day to be devoted to *teaching pupils how to study*. As the work progresses from general to intensive work this becomes more and more important. The only way in which pupils can learn how to study with any economy of time is for some one to teach them, and this spare time each day should be devoted to showing pupils how to study. The work may be done individually or in small groups; on one subject to-day and another to-morrow. Some of the difficult work usually given pupils to work out at home, and which is usually worked out by the parent or older child, might be "ground out" in the study-time, the teacher collecting the pupils most needing such help into groups. Many plans will easily suggest themselves to teachers.

Whenever such time is reserved, it should be used for this purpose only. The time is not meant as a resting-time for the teacher, and must not be so used.

OBSERVATION OF CHILDREN.

In teaching, teachers should not forget the child who is to be taught. Any teacher will teach better who makes a study of the children she is teaching. The more a teacher studies children the broader she will become in her sympathies and her methods of teaching. What is meant is not technical Child Study, based on syllabi and the tabulation of statistics, but intelligent observation, based on a careful study of such books as Rowe's *Physical Nature of the Child* (Macmillan, \$1.00), or Warner's *The Nervous System of the Child* (Macmillan, \$1.00).

Teachers, too, should avoid that dead uniformity which crushes the life. Be broader than a few examination questions or any stereotyped method of instruction. Always remember that what is poor work for one pupil may be excellent for another, and that to require the same standard of work from each child would be an educational blunder.

PROFESSIONAL STUDY.

Every teacher should read one or two of the best educational books published each year. A few books are published every year which teachers would find of great assistance. Of the recent books the following are suggested as being particularly valuable:

Dewey, John. *The School and Society*. (Univ. Chic. Press, 75 cents.)

Dutton, S. T. *Social Phases of Education*. (Macmillan, \$1.00.)

James, Wm. *Talks to Teachers on Psychology*. (Henry Holt, \$1.65.)

McMurry, Chas. and Frank. *The Method in the Recitation*. (Pub. School Pub. Co., \$1.00.)

Rowe, S. T. *The Physical Nature of the Child*. (Macmillan, \$1.00.)

Tompkins, Arnold. *The Philosophy of School Management*. (Ginn & Co., 85 cents.)

Warner, Francis. *The Nervous System of the Child*. (Macmillan, \$1.00.)

These books bear directly on the work of the schoolroom. They are general in their nature and are not to take the place of the references given after each course, which are specific.

BOOKS FROM THE FREE PUBLIC LIBRARY.

By a generous provision on the part of the authorities of the San Francisco Free Public Library teachers in the public schools will be permitted to draw ten books at a time for school use. These books may be kept two weeks. The ten copies for school use are

drawn on a special teacher's card, and are in addition to the usual copy allowed on the teacher's personal card.

In addition to the above, the Librarian has kindly offered to add additional copies of all books of particular use to the schools, with a view to assisting the teachers as much as possible. The Librarian will also add duplicates of the Home Reading books, and will provide sets of the same for all of the Branch Libraries.

This kindness on the part of those connected with the administration of the Free Public Library is greatly appreciated by the Board of Education and the Superintendent of Schools, and it is hoped that teachers will show their appreciation by a liberal use of the library books for class instruction, and by doing all that they can to form a habit of reading good books on the part of the pupils.

GENERAL SUGGESTIONS.

Examination by Deputies in Day and Evening Schools: Vocal Culture as per *Fourth Reader*, pages xi-xv; good expressive Reading; Singing; Mental Arithmetic; condition of books; appearance of writing-books, book-keeping sheets, business forms, drawing and blank books; manner of saluting flag, with pledge; of Calisthenics and Physical Culture; of managing composition; method of imparting morals, manners, and patriotism; of managing home-work, keeping registers, of keeping record of temperature; of marching and fire-drills; of using the library, charts, and apparatus; attention to pupils to and from school and in the yards; discipline; and methods of instruction.

Written examinations in Physiology and Humane Education, will not be held; extensive blank-book work should not be given. Deputies will examine orally over ground designated by teacher. Not more than eight pages of blank-book work in any subject.

Examinations and tests for supervision will be based on the Courses of Study, both as to *content* and *method of work*.

Annual or semi-annual promotion of classes: Any time during the year, after consulting with class teachers, Principals may promote capable pupils or put back incapable pupils.

Widest latitude is allowed to teachers in making up programs and following methods, but a copy of the program must be written in the register and another kept posted in the schoolroom.

Home Work: Fourth Grade, three-quarters of an hour; Fifth Grade, three-quarters of an hour; Sixth Grade, one hour; Seventh and Eighth Grades, one and one-half hours. Enough time should be devoted to secure sufficient preparation for thorough work the next day. Some will not require so much time as specified; others more.

The twenty minutes allowed for recess must include the time necessary for leaving and returning to rooms and all preparations and exercises incidental thereto. Preparations for dismissal must not be made until five minutes of the hour set for the same. (See Rules of the Board.)

More than one section of class at discretion of teachers, but no more recitations are to be heard in a day than will permit of thorough mastery and drill on each new lesson. Pupils are not to be hurried for the sake of touching each subject every day; consider only enough daily to permit of thorough, enthusiastic work.

The day's exercises should begin with song. Appropriate selections will be found in the back part of the prescribed music books.

Reading and Singing are to be preceded by breathing exercises; pupils are not to sit during these periods. Constant attention should be given to chest development.

Calisthenic and breathing exercises, twice daily.

In every recitation insist upon an erect position, distinct articulation, and correct expression.

In all schools teachers may be assigned by the Principal to music classes according to their abilities in the subject. The voices of boys from thirteen to fifteen years of age, inclusive, must not be strained.

Insist on all written work being done neatly, the pencils being sharp and of sufficient length.

Books and papers should always be placed in good order in desks.

The use of pencil tablet paper is recommended in place of slates.

Corporal punishment should not be administered in the High Schools nor upon girls in any schools of the Department. Such punishment should be administered by Principals, by Vice-Principals having charge of boys' yards, or by teachers of primary classes, with consent of Principals, and shall only be resorted to in extreme cases, when other means fail to maintain obedience. No excessive, cruel, or unusual punishment shall be allowed.

All modes of punishment calculated to degrade a pupil, and the use, on the part of any teacher, of discourteous language towards pupils or parents, are expressly forbidden.

Should injury to desks, or other annoyance occur where day and evening classes occupy the same room, the Principals should confer to fix responsibility.

Teachers are not to relax watchfulness over their classes by visiting associate teachers during session or by work on examination papers or registers. The closest attention to discipline is expected.

Every classroom should be supplied with the National flag, and the same should be saluted occasionally. Once a week the salute should be accompanied by the pledge: "I pledge allegiance to my flag and to the Republic for which it stands—one people, one language, one flag."

Avoid the use of irritating language. The sarcastic teacher is likely to have insolent pupils.

As far as possible avoid placing a pupil in a position where he will be tempted to tell a falsehood.

Give few commands, but enforce those made.

Make no rash promises, but keep those made.

Make the schoolroom attractive and pleasant.

Good manners are intimately connected with good morals, and teachers should improve every opportunity to teach civility and

courtesy. In the Primary Schools, teachers should give particular instruction in the common rules of politeness. The manners of children in their intercourse with schoolmates should receive constant attention. The position of the pupil in his seat, his movements in and out of the room, his manner of reciting, should all be carefully noticed.

No teachers can expect to make their pupils more civil or more courteous than they show themselves to be. In dress and in manner, they must be what they would have their pupils become.

GOLDEN RULES.

1. Endeavor to set a good example in all things.
2. Never overlook a fault; to do so is unjust to the children, since you will, no doubt, soon have to correct them for a repetition of it.
3. Spare no pains to investigate the truth of every charge; and if you cannot satisfy yourself, make no decision. Leave it to the future to develop.
4. Never correct a child in anger.
5. Do strict justice to all, and avoid favoritism.
6. Always prepare for your lessons by previous study; never attempt to teach what you do not thoroughly know.
7. Try to bring forward the dull and backward children; the quick intellects will come on without your notice.
8. Teach thoroughly, and do not try to get on too fast. Remember that you are laying the foundations of knowledge.
9. Attend strictly to the personal cleanliness of the children.
10. Attend to the cleanliness and neatness of the schoolrooms, and to the order and neatness of the playgrounds.
11. Attend to the ventilation and heating of the rooms. In summer, when warm, keep the windows constantly lowered from the top; and in winter, or in inclement weather, always open them when the children go out to play.
12. Do not be tempted to give undue attention to the elder, to

the neglect of the younger classes. Such a course would be fatal to the general advancement of the school.

13. Strive to cultivate a spirit of true politeness in all your dealings and associations with youth. Remember that children can not be properly educated until they catch the charm that makes the gentleman or the lady.

14. Take every opportunity of moral training. Consider that it is better to make children *good than clever*.

15. Constantly seek self-improvement, and try to enlarge your own stock of information. Remember that *knowledge is your stock in trade*.

16. Let your intercourse with children be regulated with love. Remember that our Blessed Lord loved little children, and "took them in his arms and blessed them."

The current school journals and magazines will be found in the Teachers' Library, Superintendent's Office. The latest educational books and reports are being constantly added. Teachers should consult the Teachers' Library List for professional books. Most of the books mentioned as references in the following courses can be found in the Library at the Superintendent's Office. All of the references can be obtained at the Free Public Library.

I. READING AND LITERATURE.

1. INTRODUCTION.

There are two main objects in having Reading in a Course of Study;—to give to pupils the ability to read, and to awaken an interest in and an appreciation for good literature. To teach pupils to read without showing them what to read and without developing in them a spirit of literary appreciation is to do but a small part of our duty. This love for what is really worth reading, will not grow up of itself, nor can it be developed by the use of a reader, composed of scrappy selections and really intended for drill on the technical side of reading. The only way to lift children above the low level of the trashy novel and the sensational newspaper is to do it by developing in them, during the early years of school life, a keen appreciation of good literature. This opening up of the fields of literature is not a duty which should be left to the high school or to the last year or two of the grammar school. On the contrary, it should begin as soon as the child begins to read, and should continue throughout his school course.

Viewed from a technical standpoint, a child should be taught to read well,—to articulate perfectly, to give the proper inflection and emphasis, and to make the proper rhetorical pauses. This work will occupy much of the teacher's time during the first two or three years of school, and drill of this kind should be continued to a certain extent in the Grammar School and in the High School. It is the chief function of the ordinary school reader to furnish the material for this drill on *the mechanics of Reading*.

Drill-work, though, should not be all there is to a course in Reading. To keep a child grinding away at drill-work alone will

defeat the very object of the drill. Ease in learning to read is largely determined by the quantity of suitable material read, and by the rapidity with which a child's attention is shifted from the mere process of reading to the thought contained in the book, thus rendering the mechanical process an unconscious one. This demands quantity, and this quantity should take the form of easy reading-matter which is suited to the advancement of the pupil. In the supplemental reading the child is given practice in the use of his tool. The drill and the rapid reading should go side by side.

In selecting the material for the rapid supplementary reading a few fundamental considerations have been kept in mind:—

First—What is wanted is not a scrappy reader, except in the first year or two, where the drill-work is the most important part, but rather entire selections or stories having a continuous line of thought.

Second—The selections should be good literature,—something really worthy of the child's time and effort,—something that will develop a love for good reading-matter. The information reader has little place in this work.

Third—The selections should be interesting in themselves, and should appeal to the child in such a way as to make him want to read more of the same kind.

The following outline of work in Reading and Literature has been drawn up with the above ideas in mind. It has also been outlined with a view to making a decided improvement in Reading in the San Francisco Schools. The changes contemplated will take place gradually, and, when completed, will not involve any heavier work than is now done in other schools of the State. To assist teachers as much as possible, the work has been outlined quite fully; but, though it may seem large, measured in pages of a Course of Study, it is not really so, and will not be hard to do. Five lines of work have been laid out, to secure a clearer definition in the minds of teachers of the different phases of the work, but these are capable of such close correlation with one another and with the work in Geography, History, and Language that the different lines of work unite to form a whole.

The five lines are as follows:—

First, technical drill in reading. There is little change in this from what has been done the past year, except to arrange for a gradual change by which the Fourth Reader will in time be completed in the Fifth Grade instead of the Seventh, thus making room for more Literature in the upper grades. For the earlier grades, work in Phonics has been outlined, gradually leading up to the use of the dictionary in the Fifth and the Sixth Grades. Only a small amount of phonic work has been introduced, particularly in the First Grade. A small amount of such drill is a decided help in mastering words. It is an additional tool in the hands of the pupil. Teachers should study the work in Phonics carefully, so as to do the work intelligently, and, while using it to help the child, should observe the caution of not making it an end in itself and thus rendering the phonic work more difficult than the reading. Teachers of this work should read *Phonics and Reading* by Van Liew and Lucas.

The second line of work upon which the course has been laid out is that of using a quantity of good literary or historical material to supplement and give force to the drill-work. As far as possible, stories having a continuous literary or historical interest have been indicated, and often whole selections of our best literature. The work has been planned to lead at once into the study of good literature, thus applying the technical knowledge as fast as learned and cultivating a literary taste.

The third line indicated, that of Selections to be Read to the Pupils, will give teachers an opportunity to reinforce both of the preceding lines of work. The selection itself should be read in the best manner possible. The teacher should place before the pupils an example of good reading. The selection should also be interpreted with a view to awakening the literary appreciation of the class.

The List of Selections for Memorizing constitutes the fourth line of work. There has been little change in this list except to increase the number of options. Directions for this work are given further on.

The fifth line of work, Home Reading, gives further emphasis

to the preceding work. Every child does a certain amount of reading. If there is no direction to it, it is much more likely to be bad than good. After a taste for cheap, trashy literature has once been formed it will take hard work on the part of a teacher to change it. Investigations have shown that the reading tastes of children are usually formed at the age of twelve or thirteen. It is manifestly the duty of the public school teacher to do what can be done to develop the habit of spending one's leisure time in reading books which have made a place for themselves in literature instead of wasting it on the ephemeral novel or the sensational newspaper. If the work in Literature and Reading is properly done it is the most far-reaching of all the work of the Elementary Schools. Skill in Arithmetic is easily lost, but a love for good books lasts a lifetime and is capable of changing one's entire future. In reading, more than anything else, the pupil learns that the great law of life is a conscious striving to realize an ideal manhood and womanhood. He lives over the lives of the characters of the story or life of the hero, and his own life is made nobler and stronger thereby.

2. SUGGESTIONS AS TO THE STUDY OF LITERATURE.

A selection, such as *Snow Bound* or *The Great Stone Face*, should be read twice. The first reading should be to gain a general idea of the plot or story, and to get a conception of the characters and the parts they take. In connection with the first reading, if the selection be a poem, there should be some attention to the rhythm, accents, and rhyme. This first reading should not require much time.

Parts of the selection may be read at home. Each day there should be a brief review of what has been read. Following the first reading, or along with it, the teacher should talk with the pupils to help them to understand and appreciate the selection.

The second reading should be much more carefully done. This second reading should open up the field of literature in a new way

by showing pupils how much a selection from good literature contains and how much may be gotten by digging below the surface. Some instruction and help will be necessary here. One lesson should be spent in showing the pupils how to study. Determine the natural parts of the story, study the characters and the effect of their introduction on the plot, bring out the ethical import, and try to secure an appreciation of the artistic elements of the selection. Keep prominent the idea of the development of a literary appreciation, and do not forget that there is such a thing as "the teaching of feeling" in connection with literature as well as the teaching of reading or facts. Select certain passages for memorizing.

If desired, the selection may be read a third time. This third reading should be done carefully and yet without consuming too much time. It should be critical, and should involve oral analysis of sentences which are not clear. A third reading should not follow except with one or two selections a year, and then only in the Seventh or Eighth Grades.

For further suggestions see introductions to the different selections to be read. Remember that no plan can serve as a substitute for earnestness, enthusiasm, sympathy, and a careful preparation on the part of the teacher.

3. ON TEACHING READING.

Slow reading is due to lack of quickness of association, and to increase the speed it is necessary to increase the rapidity of association by repeating and multiplying associations and intensifying interest and attention. Slow reading, when done silently, is often accompanied by actual pronunciation or articulatory imagination of the words read. This device, while it may assist in getting an obscure meaning, is a hindrance to children, and should not become habitual. Pupils should be taught to keep the eye ahead of the lips in oral reading by a full half or even a whole line. The proper expression of the thought is not possible unless this is done.

One of the most common defects in oral reading in schools is the lack of clear and distinct articulation. Many pupils leave the Grammar Grade without having acquired the habit of enunciating syllables clearly and distinctly. Vowels and diphthongs are slurred, and consonants are vocalized so feebly as to be almost inarticulate. The other common fault of oral reading is inaccuracy. Pupils not only mispronounce words, but omit words and substitute other words for the ones in the book. To correct these defects the teacher should be familiar enough with the selection to watch the pupil's lips, and then require him to read the passage so that she or any one else could easily understand it without reference to a book.

The aim of teaching reading is not to make elocutionists, but good, distinct readers. Reading should resemble good conversation as much as possible, the child reading the selection as though he were relating the story to his teacher or playmates. Oral reproduction of stories read and told will do much to secure such reading. Correct articulation is a thing to be desired and striven for, but it must not be insisted upon to the extent of making the reading mechanical or the reading-lesson a game in correct pronunciation. Such games make children keen-sighted, quick, and correct, but their place is not in the reading-lesson, if we wish to teach literature and develop a love for reading.

In reading, first attend to the thought of the lesson, then to the expression of the thought, and, last and not least, to the mechanical defects. Let the children clearly understand that the reading lesson is to be, first of all, a clear, "clean-cut" process of thought. Study the lesson with the children; compel them, by means of questions, to *think*, to *reason*, and to *express* the thought of the author in good, clear English. Gradually lead the pupil to see that in every good literary selection the leading thought is a universal one; that if the selection is designed chiefly to *instruct*, the *clearness* of style is apparent; if to *please*, its *elegance*; if to move the *will*, its *energy*; and note the perfect fit of the language to the thought. Work out the historical and the geographical allusions of the selection; obtain clear mental pictures of the passages; illustrate or explain what the pupils fail to understand; and, after the thought has been mastered, take up the piece as a reading lesson proper.

Pupils should have practice in the interpreting of figurative language, so that they may have a keen insight into figures of speech and a keen appreciation of their beauty and power.

The following schedule shows the gradual change to be made in the use of the State Series Readers:—

GRADE.	1st.	2d.	3d.	4th.	5th	6th.	7th.	8th.
1899-1900.	$\frac{1}{2}$ of 1st	$\frac{1}{2}$ of 1st	2d	3d	$\frac{1}{2}$ of 4th	$\frac{1}{2}$ of 4th	$\frac{1}{2}$ of 4th	Supl.
1900-1901.	1st	$\left\{ \begin{array}{l} \frac{1}{2} \text{ of 1st} \\ \frac{1}{2} \text{ of 2d} \end{array} \right\}$	2d	3d	$\frac{1}{2}$ of 4th	$\frac{1}{2}$ of 4th	$\left\{ \begin{array}{l} \frac{1}{2} \text{ of 4th} \\ \text{Supl.} \end{array} \right\}$	Supl.
1901-1902.	1st	2d	$\left\{ \begin{array}{l} \frac{1}{2} \text{ of 2d} \\ \frac{1}{2} \text{ of 3d} \end{array} \right\}$	3d	$\frac{1}{2}$ of 4th	$\frac{1}{2}$ of 4th	Supl.	Supl.
1902-1903.	1st	2d	3d	$\left\{ \begin{array}{l} \frac{1}{2} \text{ of 3d} \\ \frac{1}{2} \text{ of 4th} \end{array} \right\}$	$\frac{1}{2}$ of 4th	$\frac{1}{2}$ of 4th	Supl.	Supl.
1903-1904.	1st	2d	3d	$\frac{1}{2}$ of 4th	$\frac{1}{2}$ of 4th	Supl.	Supl.	Supl.

4. OUTLINE OF INSTRUCTION.

FIRST GRADE.

READING.—Reading from blackboard, chart, and cards. State First Reader begun and completed during the year. Also read one or more supplemental readers of equivalent grade. (See list.) Use the supplemental reader along with the regular reader.

The teaching of Writing and Spelling should begin simultaneously with that of Reading. During the First Year, there should be no attempt at *oral* spelling, and the calling of letters by their names should be avoided. Until pupils have become strong in the use of the *sounds* of the letters, their names prove stumbling-blocks in the mastery of words and cause confusion.

Reading in this grade should include reading by Sight (Word

Method) and by Sound (Phonic Method). The Word Method is used through the first few months while preparatory work in Phonics is being done, and until the pupils are able to use Phonics in the reading of unknown words. The teacher is to use her discretion in the selection of the words to be taught as wholes. Words selected from the first thirty-three lessons in the State Reader will help in the reading from the book when the latter is placed in the hands of the pupils. The State Reader, however, should not be used by the pupils until they have acquired considerable ability in reading from the blackboard, from cards prepared by the teacher, from charts, or from other readers.

The use of reading-cards during the year is very desirable. Teachers can prepare these easily by mimeographing lessons on a manila card of about five by seven inches in size. These can be used for class work or home work, and can be preserved and used from year to year.

WORD METHOD.—The following suggestions in the Word Method are offered as a help in interesting beginners:

First. Story, used as a basis, such as, A Cat Story, and made familiar to the children through frequent repetition. (A picture in connection with a story is a great help.)

Second. Words taught as wholes taken from the story, as cat, baby-cat, mamma-cat, kitty, likes, see, I, you, milk, want, can, young, old, big, little, white, black, he, pretty, good, etc. (All these words are used in the State Reader, and can be easily worked into a story by any primary teacher. The object of the story is merely to awaken interest.)

Third. Short sentences, introduced as early as possible, composed of the words learned as wholes such as,—

Papa-cat is big.

He is old.

Is he pretty?

I like kitty.

He is little.

Mamma-cat is white, etc.

Avoid repeating the same words at the beginning of the sentence; as.—

Is he big,
Is he good,
I see the man,
I see a box. etc.

Write new sentences each day, varying the order of the words as much as possible. Do not be in a great hurry to teach new words. Slow work at first insures certainty and is best in the end.

Fourth. Another story to be used in the same way: A Duck Story. Such words as duck, ducks, water, mother, pond, swim, in, says, come, fly, etc., are to be taught as wholes, then used in sentences on the board, as suggested above. Such sentences should also be written on cards, in order to familiarize the pupil with reading from paper.

Fifth. Teaching words as wholes should continue more or less through the first year, but is to be gradually dropped in favor of the Phonic Method, which, when properly taught, gives the pupils the ability to read new words unassisted by the teacher. Words like where, there, put, shoe, etc., are to be taught as wholes, because the teacher is not expected to teach the vowel-sounds contained in these words, and the pupils will not have the key to the reading of such words.

Sixth. A little device for teaching words has been used quite successfully by many teachers, and is as follows: Have a good thick envelope for each child. Have each child's name carefully written on the outside. As soon as a child knows a word at sight, and can readily recognize it, write it for him on a little card and allow him to keep it in his envelope. This device awakens a desire in the child to know a great many words so that he can have many words in his envelope. The teacher is repaid for the extra work of writing these words for the children by their increased interest. These envelopes furnish much material for "busy" work—reading, sentence-building, and copying. This plan is offered only as a suggestion, and is not to be required of any teacher. Any teacher who has a better plan is free to pursue it.

PHONICS—DETAILS.—During the first few months Phonic exercises as indicated should be given separately from the reading-lesson proper. The time required for success in this work varies greatly in different localities, and even in different classes of the same school. Excellent results can be obtained in fifteen minutes daily under favorable conditions. Under adverse conditions, it is necessary to devote all of thirty minutes daily. The following suggestions are offered to those teachers who have no system of their own, or who are not satisfied with their results. They are the result of practical work in the schoolroom and have proved successful.

PHONICS FOR BEGINNERS.—The importance of giving pupils in the First and the Second Grades of school ability to read words through a knowledge of the sounds composing the words is coming to be understood by all thoughtful teachers who are trying to find and apply the methods most in accord with natural processes. It is claimed that the English language is not strictly phonetic; yet, all will agree that even in English, words are nothing more nor less than a succession of sounds, and the sooner the child is taught that printed or written letters are but the symbols of the sounds he is daily uttering in his speech, the sooner will he overcome the difficulties of mastering the reading of words which are new and strange to him.

With children just entering school the teaching of Phonics is under no consideration to take the place of teaching words as wholes. During the first few months the word method should be used entirely, the phonic drill being a separate and preparatory exercise.

First Step.—Ear training; slow pronunciation by the teacher.

1. Names of objects in the room.
2. Names of objects at home.
3. Names of familiar objects in stores.
4. Action words.
5. Modifying words.
6. Isolated words in sentences or stories.
7. Orders given in slow pronunciation; e. g.,—

Teacher—I see a pretty r-ō-s-ē.

Pupil—Rose!

Teacher—I have a piece of ch-a-k.

Pupil—Chalk!

Teacher—I have in my hand before me a b-a-ll.

Pupil—Ball!—etc., etc., etc.—till the pupils can immediately give the word pronounced in this way.

Do not teach a single sound from the blackboard till the pupils can readily blend the separated sounds into words. *It is the base of successful work in Phonics.* Do not allow concert answers in this exercise. Give different words each day, and keep up this exercise the entire year. When the pupils are becoming expert in blending oral sounds, as above suggested, they may be given,—

Second Step.—Teach them *one* sound, as “s,” and the written character that represents that sound.

Be careful not to teach the name of the letter. Introduce the sound by an interesting story about a snake. Compare the shape of “s” to the snake when crawling across the road, get from the pupils the noise made by a snake when hissing, and, when the children are thoroughly interested, print several s’s on the blackboard, allowing the class to make the sound every time the letter is repeated; as s-s-s-s-s.

From the beginning reserve a space at the top of one of the blackboards for a table of phonics. As soon as one sound is learned, place it in the table, and leave it permanently there in its own place. When children forget a sound they can easily recall it from its position in the table.

Third Step.—Drill in steps one and two. Repetition of sound learned. First, by the class; then by individual pupils until each pupil can pronounce it *clearly*.

Fourth Step.—Teach another sound; as “h.” (Sound mother makes when she sits down very tired.) Introduce it with a story: have the children sound it each time you print or write it; have the class repeat the sound in concert; then call upon individuals; and

when satisfied that the pupils know it, place it in the table. Keep up the drill in the steps mentioned all the time.

Fifth Step.—Give sentences, orally, containing words with the sounds learned. Teacher should spell phonetically words such as those italicized. The children should discover these words; as,—

The *sun* is round. Ans.—Sun.

The *sea* is deep. Ans.—Sea.

I *see* you. Ans.—See.

I can *sew*. Ans.—Sew.

Sixth Step.—Give a word, and have a child give either the initial or terminal sound; as,—

(Initial Sound)—rope. Ans.—“r”

fish. Ans.—“f”

cape. Ans.—“c” etc.

(Terminal Sound)—cap. Ans.—“p”

dish. Ans.—“sh”

egg. Ans.—“g,” etc., etc.

Seventh Step.—Teach another sound and its printed or written character. Get from the pupils the noise made by one smoking. Introduce the sound (not the name) of the letter “p”. Proceed as in step three. Keep up daily drill in previous steps. *Be sure to get at the individuals.* Never be satisfied until each child can produce the sound exactly. Concert work in phonics amounts to little.

Eighth Step.—Give the pupils, orally, a sound, as “sh,” and require them to give you as many words as possible containing that sound. They will give ship, shoe, shine, shame, etc. Next day give them, orally, another sound; as, “r.” They will give many words, as rope, rat, rake, rap, etc. Keep up this drill until the pupils are quick to respond.

Ninth Step.—While continuing work as suggested in all the previous steps, teach other sounds, one at a time, until each one is perfectly learned. *Do not be in a hurry to teach many sounds in a little while. Be satisfied with slow work at first. Make the pupils*

very certain, and do not go so fast that they will become confused. For the purpose of impressing the sounds upon the pupils, it is better to teach, in the beginning, only such sounds as can be compared to sounds in nature:—

“s,” “h,” and “p”—as already mentioned.

“m”—humming of a bee or bird, or sound a child makes when patting himself over the thought of eating something he particularly likes.

“r”—growling of an ugly dog when he thinks another dog intends to take his bone.

“w”—wind blowing through the trees.

“sh”—mother says when baby is sleeping and you must not wake it.

“ch”—noise of engine starting off.

“ä”—sound the baby in the cradle makes when playing with his hands or his toes.

“i”—noise of hungry birdlings in the nest when mother-bird comes with a worm, etc.

Tenth Step.—At this stage, if previous exercises have been carried out according to directions, the pupils can begin to combine into words the sounds the teacher places upon the blackboard. Teachers should not at first use words of more than three sounds, and should be careful not to use sounds with which the pupils are not familiar.

The teacher prints or writes “s”: the children volunteer to give the sound. In all probability the pupils will sound it without waiting for permission. The teacher must be patient and allow it *at first*. She must not mind this perfectly natural process. It can be stopped later when the children do not feel the necessity of *hearing* the sounds for blending, but can blend them mentally.

The teacher prints or writes “ä” next to “s.” The pupils sound it.

The teacher puts “m.” The pupil sounds it.

The teacher has the class sound the three letters, and allows some *one* to give the word.

If the sounds suggested have been learned, the class will be able to find out such words as—

sĭp, sǎp, shĭp, shăp, răm, răp, hăp, etc.

Such words are not intended to be remembered. They are to be found out, pronounced, and rubbed off of the blackboard. The object of Phonics is not to memorize words, but to give the children the ability to read them by their sounds. Neither must Phonics take the place of teaching words as wholes. The province of Phonics is to put a tool in the hands of the child which will enable him to find out, with little or no assistance, those words which he has not been trained to recognize at sight.

As soon as most of the combinations which are possible with the known sounds have been given it is time to teach a new sound. Each new sound will furnish material for a great variety of words. Teachers should teach all the easier sounds first, as f, l, m, n, r, s, w, and any sounds which can be prolonged without a repetition, leaving sounds of difficult articulation for the latter part of the term; as, b, d, g, j. Each teacher should also be sure that she herself knows perfectly the sound of the letters.

Eleventh Step.—Print or write on little cards such words as the pupils ought to be able to find by sound, as, rack, like, etc.

Distribute these cards to the pupils. Have each child find the word given him, *by himself*. Do not assist him, if you can help it.

If new cards are made out for every new sound taught, the number of words will soon be in the hundreds, thus allowing a great deal of practice in individual work. This is an invaluable step in self-reliance.

Twelfth Step.—Make up sentences, consisting of not more than four words, three that the children recognize at sight and one to be found by “sounding.” Conduct this exercise from the blackboard at first; later, from sentences written on separate cards, as in Step Eleven, and used in the same way. Nothing will develop individual effort better or bring about so much self-reliance and independence. There should be much practice in this step.

REMARKS.—Some sounds not comparable with sounds in nature,

may be told by means of a story that appeals to a child's imagination. Later, sounds can be taught by analysis of words known as wholes.

To illustrate, suppose the sound to be taught is that of "j." The teacher, with this idea of analysis in her mind, at some time has perhaps taught the class the word *Jill*, as a whole, to be recognized at sight.

Have the pupils separate the word into its sounds by slow pronunciation, as *J-i-ll*, a good many times. When they are able to separate the sounds well, stop them on the *first* sound, cover the other sounds so they can no longer be seen, and have the class repeat the sound of "j" over and over. When they associate the sound they make with the letter, place the latter in the table of sounds, and drill them upon it as you did upon the other sounds.

At the end of the first year the average pupil should know the long and the short sounds of the vowels, almost all of the consonants, and probably a few combinations, such as *sh*, that each teacher will find she would like to use. Any average pupil should be able to find for himself any word composed of four or five of the sounds learned.

TO BE READ TO THE PUPILS.—Teachers should read to the pupils daily, or tell them interesting stories of some educational value. The art of telling a story well is one which teachers should cultivate. See suggested list for books to read from.

SELECTIONS FOR MEMORIZING.—(See suggested list.)

HOME READING.—(See suggested list.)

SECOND GRADE.

READING.—Continue blackboard and card reading during the first quarter of the year. Finish any supplemental reading begun in the First Grade, and read two or more of the supplemental readers indicated for this Grade.

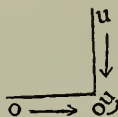
During 1900-1901 complete the State First Reader by or before

the close of the Fall Term, and read the first ninety pages of the State Second Reader by the close of the Spring Term.

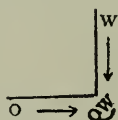
After 1900-1901, read the State Second Reader entire during the year, reading half of it each term.

PHONETIC WORK.—In this grade devote about fifteen minutes daily to phonetic drill. (See suggestions for First Grade work.) Gradually place the table of phonics which the pupils mastered in the First Grade on one blackboard devoted exclusively to Phonics. Review the table slowly, taking as nearly as possible the same order of sounds as followed in the First Grade. Enlarge on this table by adding ä, ä, ē, ī, ô, ȳ, ū, û, ōō, ȳȳ, ou, ow, th, wh, g, x, z, oy, oi. *Do not be in a hurry. Proceed slowly and be sure the pupils are thorough.* When a new sound is presented, drill on lists of words containing it. Phonic words are not to be memorized. They are to be deciphered and then erased. New sets of words should be read each day. Then such words are to be used in sentences on the blackboard, and on cards or slips of paper written by the teacher to test her pupils' ability in applying Phonics to Reading. If the pupils cannot apply Phonics to Reading, the time spent in teaching Phonics is wasted.

MANNER OF INTRODUCING AND TREATING A NEW SOUND.—Suppose the teacher has interested her class in the story of a boy (represented by "o") who was sent on an errand to the grocery-store and who accidentally bumped into another boy (represented by "u") coming around the corner,—



and who said ou! Next day he bumped into his cousin (represented by "w") at the same place,



and of course said ow again. It will not take many minutes for the class to know the sound of these two combinations, and to know them wherever they meet them. Then should follow the reading of a few words containing these combinations:—house, pound, ground, ound, round, bounce, etc. Next day, a different list is read:—how, bow, cow, now, brow, brown, gown, town, etc.

Then will come the application of this sound-work to reading from blackboard and from cards as follows:—

Mary found a little bird.
It had fallen down from its nest.
She found it on the ground.
It was a little broyn bird.
She carried it into the house, etc.

When several such lessons can be readily deciphered by the pupils, it is time to teach a new sound. If the children are not hurried, no confusion will arise and Phonics will be a pleasure to the pupils and a relief to the teacher, whose only work in teaching new words will consist in occasionally marking a vowel in some unknown word.

It is time absolutely wasted to ask children to step to the board and "mark" an unfamiliar word. How could adults respond to a similar request if the words were entirely out of their vocabulary? *The only value of Phonics is in Reading—in putting sounds together. When a word is known, the necessity for Phonics and diacritical marking ceases.*

TO BE READ TO THE PUPILS.—Teachers should try to find time each day either to read to their pupils or tell them some interesting story possessing real educational value, the object being to familiarize pupils with short stories possessing literary or historical value and lay a basis for oral Language work. (See suggested list for books to read from.)

SELECTIONS FOR MEMORIZING.—(See suggested list.)

HOME READING.—(See suggested list.)

THIRD GRADE.

READING.—*During 1900-1901* complete the State Second Reader, using half of it each term.

During 1901-1902 complete the State Second Reader from page 91, and read the first fifty lessons (to page 137) of the State Third Reader.

After 1901-1902 begin with the State Third Reader and complete it during the year, using approximately half of the book each term.

Read two or more of the supplemental readers indicated for this grade. (See list.)

PHONICS.—Give an average of ten minutes daily to this work during the Third Year. Second Grade table of Phonics reviewed and enlarged by adding all sounds previously omitted as a, e, e, i, etc. Success in Phonics in any school depends upon its being carried on systematically. In many First Grade classes good work in Phonics is done, but its advantages are lost because the teachers above the First Grade discontinue it, thus depriving the pupils of the power Phonics develops in them.

Drill pupils on reading words containing the same prefixes, or the same suffixes. Do not enter into minute definitions, but give a general idea of the meaning of words read; as moneyless, penniless, brainless, tailless, careless, etc.

Do not hesitate to write words of three or even four syllables. If pupils are not discouraged by checks, loss of credits, or any of the devices well meant but too often resulting only in repressing the spontaneity of children, they will attempt anything given them—not only in Reading and Phonics but in any study.

Occasionally apply Phonics to original sentences, especially if you wish to give an idea of the meaning of a word without entering into an exact definition; as,

The *careless* child broke the cup.

Tailless foxes were not in the fashion, etc.

TO BE READ TO THE PUPILS.—(See suggested list.)

SELECTIONS FOR MEMORIZING.—(See suggested list.)

HOME READING.—(See suggested list.)

FOURTH GRADE.

READING.—*During 1900-1901 and 1901-1902* use the State Third Reader in this grade, reading approximately half of it each term.

During 1902-1903 complete the State Third Reader from where the work ended in the Second Grade the preceding year, and begin using the State Fourth Reader, reading lessons 1-31 (pp. 1-75) and lessons 65-83 (pp. 161-196) during the year. Teachers should try to carry out the design expressed in the preface of the book.

After 1902-1903 begin with the State Fourth Reader. Complete the foregoing work as indicated, and select from the supplemental lessons, omitting Sir Launfal.

Read approximately half of the work each term.

Give weekly practice on vocal training (pp. x-xv).

Supplement with one or more of the readers indicated for this grade.

PHONICS.—During this grade devote an average of ten minutes a day for five days a week the first half of the year, and for three days a week the second half of the year to this work. Follow the directions outlined under Third Grade. Give the pupils drill in pronouncing long words preparatory to using the dictionary in the next grade. Apply Phonics to Reading by having the pupil sound for himself any word he cannot read at sight. If necessary, write the word on the blackboard, mark the vowel sound, and indicate the accented syllable.

TO BE READ TO THE PUPILS.—(See suggested list.)

SELECTIONS FOR MEMORIZING.—(See suggested list.)

HOME READING.—(See suggested list.)

FIFTH GRADE.

READING.—During 1900-1901 to 1902-1903, inclusive, use the State Fourth Reader as follows: Lessons 1-31 (pp. 1-75), and lessons 65-83 (pp. 161-196.) Teachers may select from the supplemental lessons, omitting Sir Launfal. There should be an effort to try to carry out the design expressed in the preface of the book. Cover approximately half of the work each term.

After 1902-1903 begin at lesson 32 of the State Fourth Reader and complete the book up to lesson 65 (pp. 75-160) during the year.

Give weekly practice on vocal training (pp. x-xv).

Supplement during the Fall Term with one or more of the supplemental books as indicated in the list, and for the Spring Term pupils are to buy Eggleston's *First Book in American History* and use it as a supplemental reader.

PHONICS.—Give at least ten minutes a week to work similar to that indicated for Fourth Grade. Begin the use of Webster's *Academic Dictionary* in this grade. While this book is not on the *required* list, pupils should be *recommended* to purchase it, because of its great value. Pupils are to be taught how to find words rapidly and to discriminate in the different definitions given.

TO BE READ TO THE PUPILS.—(See suggested list.)

TO BE MEMORIZED.—(See suggested list.)

HOME READING.—(See suggested list.)

SIXTH GRADE.

READING.—During 1900-1901 begin at page 54, lesson 24 of State Fourth Reader and complete the book during the year, covering approximately half of the work each term. Select from the supplemental lessons, but omit Sir Launfal.

During 1901-1902 and 1902-1903 begin at lesson 32 of the State Fourth Reader and take to lesson 65 (pp. 75-160), completing the book. Cover approximately half of the work each term.

Give weekly practice on vocal training, as indicated on pp. x-xv.

Beginning with 1902-1903 the State Fourth Reader will be completed in the Fifth Grade, and only supplemental reading or selections to be designated later will be used during the sixth year.

Hawthorne's *Little Daffydowndilly and Other Stories* (Riv. Lit. Series, No. 29, 15 cents) is well suited to work in the Sixth Grade, and should be read during the Spring Term. The book is to be bought by the pupils.

After 1901-1902 read *Little Daffydowndilly* during the Fall Term. Draw from the list of supplemental reading as may be necessary.

PHONICS.—Give at least ten minutes a week to work similar to that indicated for Fourth and Fifth Grades. Continue and extend the drill on the use of a dictionary, as begun in the Fifth Grade.

TO BE READ TO THE PUPILS.—(See suggested list.)

TO BE MEMORIZED.—(See suggested list.)

HOME READING.—(See suggested list.)

SEVENTH GRADE.

FALL TERM.

READING.—*During 1900-1901* begin at page 127, lesson 52, State Fourth Reader, and complete the book the Fall Term. Supplement its use during the Fall Term with Hawthorne's *Golden Touch* (5-cent Classics, No. 22) and Hawthorne's *Great Stone Face* (5-cent Classics, No. 93), both to be bought by the pupils.

After 1900-1901 the State Fourth Reader will have been completed before the Seventh Grade. During the Fall Term read Hawthorne's *Wonder Book*, I and II, (book furnished as supplemental by the Department) and Hawthorne's *Great Stone Face* (5-cent Classics, No. 93), book to be purchased by the pupils.

Supplement the use of the above, if necessary, by reading matter suited to the grade.

SPRING TERM.

Pupils to buy *Longfellow Leaflets* (Riv. Lit. Series, No., F, 30 cents) and a careful class study to be made of "The Building of the Ship" and at least half of the remaining poems. (See suggestions on the Study of Literature at the beginning of this course.) Try to develop an appreciation for such literature. Life of Longfellow to be studied. Refer pupils to Brander Matthews's *Introduction to American Literature*, a copy of which should be in each room.

Also read, during this term, the following *Selections from Irving* (Riv. Lit. Series, No. 51, 15 cents):—Rip Van Winkle; The Legend of Sleepy Hollow; Philip of Pakanoket. Book to be bought by the pupil. Life of Irving. Refer to Brander Matthews.

Supplement the use of the above, if necessary, by reading matter suited to the grade.

FALL AND SPRING TERMS.

PHONICS.—Give at least ten minutes a week to this work, basing it on that of previous grades and the use of a dictionary.

TO BE READ TO THE PUPILS.—(See suggested list.)

TO BE MEMORIZED.—(See suggested list.)

HOME READING.—(See suggested list.)

EIGHTH GRADE.

FALL TERM.

Pupils to buy Longfellow's *Evangeline* (Riv. Lit. Series, No. 1, 15 cents) which contains biographical and historical sketches. Teachers should own and draw from the edition edited by Kellogg and Blanchard (Published by J. W. Graham, Hanford) or the edition edited by Conover (A. Flanagan, Publisher). Study the life of Longfellow, if not previously studied in connection with Seventh Grade work, and if so studied review what has been learned. Refer pupils to Brander Matthews's *Introduction to American Literature*;

a copy of which should be in every room. (See Suggestions on the Study of Literature at the beginning of this course.) The study of this selection ought to occupy about three or three and a half months.

Pupils next to buy Dickens's *Christmas Carol* (Riv. Lit. Series, No. 57, 15 cents). This edition contains a biographical sketch, the Christmas Carol, and some extracts from the writings of Dickens which are especially suited for reading aloud. Follow some plan as in other studies in Literature. Try to complete the Christmas Carol before the close of the Fall Term, and spend any time which remains in drill on the selections for reading aloud.

SPRING TERM.

Have the pupils purchase and study Whittier's *Snow-Bound and Other Poems* (Riv. Lit. Series, No. 4, 15 cents) and study *Snow-Bound* carefully. Omit *Among the Hills*, but read and study at least one-half of the remaining poems. Study the life of Whittier, and refer pupils to Brander Matthews. This work ought to occupy about two and a half to three months.

Follow the study of Whittier by the study of *Thanatopsis and Other Poems* by Bryant (5-c. Classics, No. 67.—Pupils to buy this.) Study *Thanatopsis* and at least half of the remaining poems. Life of Bryant. Refer pupils to Brander Matthews.

If sufficient time remains after the completion of the above selections, teachers may read Burroughs's *Birds and Bees* (Riv. Lit. Series, No. 28, book supplied as supplemental reading by the Department), though the reading of this selection is optional, and should not be used during 1900-1901.

FALL AND SPRING TERMS.

TO BE READ TO THE PUPILS.—(See suggested list.)

TO BE MEMORIZED.—(See suggested list.)

HOME READING.—(See suggested list.)

5. LISTS OF SUPPLEMENTAL READING.

It will not be possible to continue longer the plan of buying supplemental reading for each individual school and permitting it to remain there without charge, for the reason that the Department cannot furnish the supplemental reading in sufficient quantities. The length of time that a supplemental book is needed by a single grade will vary from one to three or three and a half months in grades above the First, and from two and a half to five months in the First, according to the size and difficulty of the book. The remaining six to nine months the book should be in use elsewhere.

Accordingly, supplemental reading will in the future be distributed from six distributing centers, the locations of these and the schools comprising each district to be designated later in a special circular.

As fast as they can be purchased, at least one set of fifty of each of the following books will be sent to each of the distributing centers, and the number of sets will be increased as soon as the Department is able to supply them. Teachers desiring supplemental books will confer with their Principal, who will arrange to have the school janitor bring the desired set from the school acting as a distributing center for his district. A second or a third choice should be indicated, so that if all of the copies of the book desired are out some other book may be sent. Principals at distributing centers will reserve for the use of classes in their schools no more than their quota. These books may be retained only such length of time as is indicated by stamp on the inside of the back cover. At the expiration of the time indicated, and earlier if teachers are through using the books, the set must be returned to the distributing center. Upon its return, another set may be obtained.

Deputies, in visiting schools, will inspect all supplemental readers on hand, bought previous to July, 1900, and have all that are in reasonably good condition sent to the distributing centers for general use. A supplemental list of the sets so gathered up will be sent out to teachers later on.

In the following list the half of the year to which the books are best adapted is indicated by F. for Fall Term, or first half of the

year, and S. for Spring Term, or second half of the year. Books equally well adapted to either half are marked Yr. For a year or a year and a half, or until pupils are able to read with greater ease, it may be necessary to use the books a half-year later than indicated below.

One copy of each book will be found at the office of the Superintendent of Schools, and may be examined by teachers at any time.

The following is the list from which teachers will draw:—

FIRST GRADE.

Badlam's <i>At Home</i>	F.
Cyr <i>Primer</i>	F.
Werner <i>Primer</i>	F.
Baldwin's <i>School Reading by Grades—Primer</i>	F.
Finch <i>Primer</i>	F.
Wooster <i>Primer</i>	F.
Badlam's <i>At Play</i>	S.
Lane's <i>Stories for Children</i>	S.
Davis's <i>Animals, Wild and Tame</i>	S.
Cyr's <i>First Reader</i>	S.
Stickney's <i>First Reader</i>	S.
Blaisdell's <i>Child Life—First Reader</i>	S.
Gilbert-Arnold's <i>Stepping Stones to Literature, I</i>	S.

SECOND GRADE.

Badlam's <i>At Play</i>	F.
Lane's <i>Stories for Children</i>	F.
Davis's <i>Animals, Wild and Tame</i>	F.
Blaisdell's <i>Child Life—First Reader</i>	F.
Cyr's <i>First Reader</i>	F.
Stickney's <i>First Reader</i>	F.
Baldwin's <i>School Reading by Grades—First Year</i>	Yr.
Gilbert-Arnold's <i>Stepping Stones to Literature, I</i>	Yr.
Pratt's <i>Æsop's Fables, I</i>	Yr.
Pratt's <i>Æsop's Fables, II</i>	Yr.
Bass's <i>Nature Stories for Young Readers</i>	Yr.

Brooks's <i>Stories of Red Children</i>	Yr.
Holbrook's <i>Hiawatha Primer</i> (First half).....	S.
Cyr's <i>Second Reader</i>	S.
Blaisdell's <i>Child Life—Second Reader</i> (First half).....	S.
Baldwin's <i>Fairy Stories and Fables</i>	S.
Smythe's <i>Old Time Stories</i>	S.
Gilbert-Arnold's <i>Stepping Stones to Literature, II</i>	S.

THIRD GRADE.

Cyr's <i>Second Reader</i>	F.
Holbrook's <i>Hiawatha Primer</i> (First half).....	F.
Smythe's <i>Old Time Stories</i>	F.
Baldwin's <i>Fairy Stories and Fables</i>	F.
Blaisdell's <i>Child Life—Second Reader</i>	Yr.
Scudder's <i>Fables and Folk Lore, I</i>	Yr.
Baldwin's <i>School Reading by Grades—Second Year</i>	Yr.
McMurry's <i>Robinson Crusoe</i>	Yr.
Eggleston's <i>Stories of Great Americans for Little Americans</i>	Yr.
Smith's <i>Four True Stories of Life and Adventure</i> (Columbus, Smith, Standish and Franklin).....	Yr.
Ed. Pub. Co's., <i>Stories of Great Men</i> (Columbus, Washington, Penn, Putnam, and Franklin).....	Yr.
Smith's <i>Story of George Washington</i>	Yr.
Holbrook's <i>Hiawatha Primer</i> (Second half).....	S.
Booher's <i>Hiawatha the Indian</i>	S.

FOURTH GRADE.

Eggleston's <i>Stories of Great Americans for Little Americans</i>	F.
McMurry's <i>Robinson Crusoe</i>	F.
Baldwin's <i>School Reading by Grades—Third Year</i>	F.
Pratt's <i>Stories of Colonial Children</i>	F.
Longfellow's <i>Song of Hiawatha</i> (Remington's Illustrations in the Edition)	Yr.
Smith's <i>Story of Hiawatha</i> (Good illustrations, but text not complete)	Yr.
Baldwin's <i>Old Greek Stories</i>	Yr.

Pratt's <i>Myths of Old Greece</i> , Vol. II.....	Yr.
Snedden's <i>Docas, the Indian Boy of Santa Clara</i>	Yr.
Ed. Pub. Co's., <i>Stories of American Pioneers</i> (Boone, Lewis and Clark, Carson, and Fremont).....	Yr.
Pratt's <i>Story of Columbus</i>	S.
Baldwin's <i>Fifty Famous Stories Retold</i>	S.

FIFTH GRADE.

Baldwin's <i>Fifty Famous Stories Retold</i>	F.
Ruskin's <i>King of the Golden River</i>	F.
Pratt's <i>Story of Columbus</i>	F.
Baldwin's <i>Old Stories of the East</i>	Yr.
Seton-Thompson's <i>Lobo, Rag, and Vixen</i>	Yr.
Moore's <i>Pilgrims and Puritans</i>	Yr.
Moore's <i>From Colony to Commonwealth</i>	Yr.
Eggleston's <i>Stories of American Life and Adventure</i>	Yr.

SIXTH GRADE.

Baldwin's <i>Old Stories of the East</i>	Yr.
Moore's <i>Pilgrims and Puritans</i>	Yr.
Moore's <i>From Colony to Commonwealth</i>	Yr.
Jordan's <i>Matke and Kotik</i>	Yr.
Hawthorne's <i>True Stories of New England</i> (Grandfather's Chair).....	Yr.
Seton-Thompson's <i>Lobo, Rag, and Vixen</i>	Yr.

SEVENTH GRADE.

Hawthorne's <i>Wonder Book I</i>	F.
Hawthorne's <i>Wonder Book II</i>	F.
<i>Stories from the Arabian Nights, I</i>	S.

EIGHTH GRADE.

Burroughs's <i>Birds and Bees</i>	S.
---	----

6. SELECTIONS TO BE READ TO THE PUPILS.

From time to time during each term teachers should read to pupils selections from good literature. Naturally more reading will be done during the first two or three years than during the years following, but a certain small number of selections should be read to the pupils during each year of their Primary and Grammar School Course.

The object of this work is not to give the pupils drill, but to awaken appreciation. To this end the teacher should practice the selection before reading it to the pupils, that she may place before them *an example of good reading*,—reading in which the pauses, articulation, inflection and emphasis are as perfect as possible. Before reading the selection the teacher should explain what it is that she is about to read, and interpret the selection sufficiently to prepare the way for the proper appreciation of it when read.

The time when these selections should be read is left entirely to the discretion of the teacher. Some can be read best in connection with other class work. The number of selections to be read each term and the choice of them is left largely to the teacher,—but with the proviso that at least one selection should be read each month and that only good literature be chosen.

By way of a suggestion to teachers the list of such reading in use at San Diego is appended. The third column gives one place where the selection may be found. “W. & F.,” means Williams & Foster’s *Selections for Memorizing* (Ginn & Co., 404); *Nature in Verse* is by Lovejoy (Silver Burdett & Co.); and “Child Life” means Whittier’s *Child Life in Poetry and Prose* (Riv. Lit. Series, No. 70-71, 40c.).

SAN DIEGO LIST.

FIRST AND SECOND GRADES.

Child’s Dream of a Star	<i>Dickens.</i>	
Who Stole the Bird’s Nest? . .	<i>L. Maria Child.</i>	W. & F.
Over in the Meadow	<i>O. A. Wadsworth.</i>	H. of Oak II.
Mountain and the Squirrel . .	<i>Emerson.</i>	Child Life.
Visit from St. Nicholas	<i>Moore.</i>	W. & F.

Rover in Church		Nature in Verse.
Mrs. Brindle's Cow Slip Feast .		Nature in Verse.
One, Two, Three	<i>Henry C. Bunner.</i>	Riv. Lit. Ser. No. 59.
What Are You Good For? . .	<i>Emily Miller.</i>	Child Life.
Lady Moon	<i>Lord Houghton.</i>	Child Life.
Pitter, Patter		Nature in Verse.
All Things Beautiful	<i>Mrs. Alexander.</i>	Child Life.
Seeing Things at Night . . .	<i>Eugene Field.</i>	Poems.
Classic Stories for Children* .	<i>Lida McMurry.</i>	
The Wind Party	<i>Dorothy Brooks.</i>	Stories of Red Children.

* This book contains a good selection of classic stories and should be drawn from freely.—
Pub. Sch. Pub. Co.

THIRD GRADE.

The Dream Peddler	<i>Lucy Blinn.</i>	W. & F.
The Chicken's Mistake	<i>Phoebe Cary.</i>	Poems.
They Did n't Think	<i>Phoebe Cary.</i>	Poems.
Ax Grinding	<i>Franklin.</i>	Ap. 4th R.
Benjamin Franklin	<i>Unknown.</i>	Banc. 4th R.
Letters of Recommendation . .	<i>Unknown.</i>	Old S. S. 2d R.
Daniel Boone	<i>Goodrich.</i>	Ap. 4th R.
Out to Old Aunt Mary's . . .	<i>Riley.</i>	Afterwhiles.
The Brook	<i>Tennyson.</i>	Child Life.
Do All that You Can	<i>Sangster.</i>	W. & F.
The Spider and the Fly	<i>Howitt.</i>	Child Life.
What Alice Said to the Kitten .	<i>Carroll.</i>	Ap. 4th R.

FOURTH GRADE.

FALL TERM.

The Prairie on Fire	<i>Cooper.</i>	Ap. 4th R.
The Battle of the Ants	<i>Thoreau.</i>	Ap. 5th R.
The Careful Observer	<i>Colton.</i>	Ap. 4th R.
Casabianca	<i>Mrs. Hemans.</i>	Old S. S. 3d R.
Robert of Lincoln	<i>Bryant.</i>	Child Life.
Sing On, Blithe Bird	<i>Motherwell.</i>	Child Life.
Over and Over Again	<i>Pollard.</i>	W. & F.
Perseverance of a Spider . . .	<i>Goldsmith.</i>	Ap. 4th R.
The Poet and the Children . .	<i>Whittier.</i>	Cyr's 2d R.

FALL TERM.

The Crow's Children	<i>Phoebe Cary.</i>	W. & F.
Lilliputian War at Sea	<i>Swift.</i>	Ap. 4th R.

Lilliputian Tailors and Cooks	<i>Swift.</i>	Ap. 4th R.
Gulliver Among the Giants	<i>Swift.</i>	Ap. 4th R.
Clear the Way	<i>Unknown.</i>	W. & F.
The Fish I Did n't Catch	<i>Whittier.</i>	Child Life.
The Discontented Pendulum	<i>Jane Taylor.</i>	Ap. 4th R.
Jack in the Pulpit	<i>Clara Smith.</i>	Child Life.
Battle of Blenheim	<i>Southey.</i>	Child Life.

FIFTH GRADE.

FALL TERM.

Old Clock on the Stairs	<i>Longfellow.</i>	Ap. 4th R.
What Intemperance Does	<i>Unknown.</i>	W. & F.
Labor is Worship	<i>Osgood.</i>	W. & F.
A Naughty Little Comet	<i>Wilcox.</i>	Nature in Verse.
The Day Is Done	<i>Longfellow.</i>	Banc. 4th R.
The Captain's Daughter	<i>Fields.</i>	Child Life.
God Bless Our Stars Forever	<i>B. F. Taylor.</i>	
Rain in the Summer	<i>Longfellow.</i>	Poems.
Squeers' Boarding School	<i>Dickens.</i>	Banc. 4th R.
A Prairie Dog Village	<i>Edw. Nealy.</i>	
The Way to Wealth	<i>Franklin.</i>	Ap. 5th R.

SPRING TERM.

Snow Storm on Mt. Shasta	<i>Muir.</i>	Banc. 4th R.
Fight of Paso del Mar	<i>Bayard Taylor.</i>	Ap. 4th R.
Deacon's One-Horse Shay	<i>Holmes.</i>	Poems.
Charge of the Light Brigade	<i>Russell.</i>	Ap. 5th R.
Charge of the Light Brigade	<i>Tennyson.</i>	Ap. 5th R.
In Swanage Bay	<i>Muloch.</i>	
Wreck of the Hesperus	<i>Longfellow.</i>	Poems.
A Leak in the Dike	<i>Phoebe Cary.</i>	Poems.
Mariner's Dream	<i>Dimond.</i>	Ap. 4th R.
Birds in Summer	<i>Mary Howitt.</i>	Banc. 4th R.

SIXTH GRADE.

FALL TERM.

The Last Leaf	<i>Holmes.</i>	Poems.
Murderer Cannot Keep His Secret	<i>Webster.</i>	Ap. 5th R.
Our Kind of a Man	<i>Riley.</i>	Afterwhiles.
Walter von der Vogelweid	<i>Longfellow.</i>	Poems.

Burial of Moses	<i>Mrs. Alexander.</i>	Standard Sel's.
The Stormy Petrel	<i>Barry Cornwall.</i>	
The Battle of Hastings	<i>Dickens.</i>	Ap. 5th R.
Man Without a Country	<i>E. E. Hale.</i>	
Pegasus in Pound	<i>Longfellow.</i>	Poems.
Battle of Blenheim	<i>Southey.</i>	Child Life.

SPRING TERM.

Hawthorne	<i>Longfellow.</i>	Poems.
Order for a Picture	<i>Alice Cary.</i>	Poems.
Daily Work	<i>Chas. MacKay.</i>	W. & F.
Marco Bozzaris	<i>F. G. Halleck.</i>	Ap. 5th R.
Ike Walton's Prayer	<i>Riley.</i>	Afterwhiles.
Death of Little Nell	<i>Dickens.</i>	W. & F.
Bell of Atri	<i>Longfellow.</i>	Poems.
Bingen on the Rhine	<i>Caroline Norton.</i>	Old S. S. 3d R.
Arnold Winkelried	<i>Montgomery.</i>	
The Dying Gladiator	<i>Byron.</i>	Poems.

SEVENTH GRADE.

FALL TERM.

My Lost Youth	<i>Longfellow.</i>	Poems.
Abou Ben Adhem	<i>Leigh Hunt.</i>	W. & F.
To a Skylark	<i>Shelley.</i>	Ap. 5th R.
Tempest (from David Copper- field)	<i>Dickens.</i>	Chap. LV.
Battle of Fort Christina (Knick- erbocker)	<i>Irving.</i>	Book VI, Chap. 7.
Resignation	<i>Longfellow.</i>	Poems.
Rienzi's Address to the Romans	<i>Miss Mitford.</i>	Ap. 5th R.
To a Mountain Daisy	<i>Burns.</i>	Poems.
Dickens in Camp	<i>Bret Harte.</i>	
I Remember, I Remember	<i>Thos. Hood.</i>	Ap. 5th R.

SPRING TERM.

Liberty or Death	<i>Patrick Henry.</i>	Ap. 5th R.
Independence Bell	<i>Unknown.</i>	W. & F.
Grandmother's Story of the Bat- tle of Bunker Hill	<i>Holmes.</i>	Masterpieces.
Painter of Seville	<i>Wilson.</i>	
Dissertation on Roast Pig	<i>Chas. Lamb.</i>	Essays of Elia I.
The Storm (Toilers of the Sea)	<i>Victor Hugo.</i>	Chap. III.

Sands of the Desert in an Hour

Glass	<i>Longfellow.</i>	Poems.
Declaration of Independence .	<i>Robt. Winthrop.</i>	Normal 5th R.
The Bells	<i>E. A. Poe.</i>	Old S. S. 3d R.
The American War	<i>Wm. Pitt.</i>	Stand. Sel's.
Paul Revere's Ride	<i>Longfellow.</i>	Poems.

EIGHTH GRADE.

FALL TERM.

The Men to Make a State . . .	<i>Doane.</i>	W. & F.
Reply to Hayne (Massachusetts and South Carolina)	<i>Webster.</i>	Old S. S. 3d R.
The Prayer of Agassiz	<i>Whittier.</i>	Poems.
The Prisoner for Debt	<i>Whittier.</i>	Poems.
The Raven	<i>E. A. Poe.</i>	Old S. S. 3d R.
Eve Before Waterloo	<i>Byron.</i>	Ap. 5th R.
Battle of Waterloo	<i>Victor Hugo.</i>	Ap. 5th R.
The Slave in the Dismal Swamp	<i>Longfellow.</i>	Poems.
Death of the Flowers	<i>Bryant.</i>	W. & F.

SPRING TERM.

Barbara Frietchie	<i>Whittier.</i>	Poems.
Sheridan's Ride	<i>T. B. Read.</i>	W. & F.
Elegy in a Country Churchyard.	<i>Gray.</i>	Ap. 5th R.
The Present Crisis	<i>Lowell.</i>	Poems.
The Prisoner of Chillon	<i>Byron.</i>	Poems.
How Old Brown Took Harper's Ferry	<i>E. C. Stedman.</i>	Poems.
The Deserted Village	<i>Goldsmith.</i>	Ap. 5th R.
On Good Books (In Sesame and Lilies)	<i>Ruskin.</i>	Lecture I.
Old China	<i>Chas. Lamb.</i>	Essays of Elia, I.
Never or Now	<i>Holmes.</i>	Poems.

Teachers will find good material for reading in such books as the following:—

FIRST THREE GRADES.

- Andersen-Grimm. *Fairy Tales and Stories.*
 Andrews, Jane. *Seven Little Sisters.*
 Jordan, David Starr. *Book of Knight and Barbara.*

- McMurry, Mrs. Lida B. *Classic Stories for Little Ones.*
 Norton, Chas. E. *Heart of Oak Books*, Nos. 1 and 2.
 Poulsson, Emilie. *In the Child's World.*
 Scudder, Horace E. *Fables and Folk Lore*, Nos. 1 and 2.
 Smythe, E. Louise. *Old Time Stories Retold.*
 Whittier, J. G. *Child Life in Poetry and Prose.*
 Wiggin-Smith. *The Story Hour.*
 Wiltze, Sarah E. *Morning and Kindergarten Talks.*

FOURTH TO EIGHTH GRADES.

Teachers are at liberty to make other selections if they can find ones more suitable. See suggestions, under HOME READING, as to interesting pupils in the work. Teachers may also read entire works to their pupils, if they wish to do so, selecting some good book of general interest. Care should be taken not to anticipate later required work. Such books as the following may be read entire:—

- Alcott, Louisa. *Little Men or Little Women.*
 Burnett, Frances Hodgson. *Editha's Burglar.*
 Dana, R. H. *Two Years Before the Mast.*
 Earle, Alice Morse. *Child Life in the Colonies.*
 Field, Eugene. *Small Book of Profitable Tales.*
 Jordan, David Starr. *Matka and Kotik.*
 Long, ———. *Wood Folk*, I. (Ginn & Co.).
 Longfellow, Henry W. *Courtship of Miles Standish.*
 Seton-Thompson, Ernest. *Wild Animals I Have Known.*
 Seton-Thompson, Ernest. *Biography of a Grizzly.*
 Stockton, Frank R. *A Book of Fanciful Tales.*
 Wiggin, Kate Douglas. *Bird's Christmas Carol.*
 Wiggin, Kate Douglas. *Story of Patsy.*

7. SELECTIONS FOR MEMORIZING.

Two kinds of selections should be used:—

First—Complete selections in poetry or prose, such as “The Rainy Day,” and

Second—For grades above the Third, short terse sayings, con-

veying some maxim or noble thought, such as, "One of the illusions is that the present hour is not the critical, decisive hour. Write it on your heart that every day is the best day of the year."—*Emerson*.

These two should be treated somewhat differently:—

The first is for memorizing, and should be learned in whole, or in part. In the case of long selections, teachers may select parts, if they think best to do so. In each grade some attention should be given to teaching pupils *how* to memorize. Too many attempt to memorize words in the order in which they occur without regard to the thought involved. Selections to be memorized should be read aloud, in a clear voice, with proper rhetorical pauses, and the thoughts involved should be explained by the pupils. Pupils should be encouraged to memorize by sentences, paragraphs, or stanzas at once. After the selection has been learned there should be some attention to the proper delivery of it. Pupils should be trained from the first to repeat many of the selections from the platform or the front of the room, and facing the class. Such drill will have a tendency to prevent the growth of self-consciousness. There should be distinct articulation, and proper emphasis and inflection. A few of the quotations, such as "Sweet and Low," or "Landing of the Pilgrims," are best learned as songs.

With the second form of selection for memorizing, the short quotation, it is not so important that there be recitation or memory drill. The quotation should be written on the blackboard by the teacher, giving the author. Teachers are at liberty to make their own selections, but the quotations used should not exceed eight lines of poetry or prose and should be of a distinctively high order. An average of one short quotation a week should be placed on the blackboard. These should be copied by the pupils into a blank book or on paper set apart for that purpose, and the copying should be done as a part of the work in Penmanship. It is not necessary that each one of these be memorized to make the desired impression. Teachers may use discretion in the matter, though many of the quotations should be committed to memory.

The following list of longer selections should be followed by teachers, and at least *two* selections should be memorized each

quarter. For most of the selections one place where they may be found is indicated.

"W. & F." means Williams and Foster's *Selections for Memorizing* (Ginn & Co., 40c.); "Child Life" means Whittier's *Child Life in Poetry and Prose* (Riv. Lit., Series No. 70-71); "Peaslee" means Peaslee's *Graded Selections*; and "Ap. 4th R." means Appleton's *Fourth Reader* (Am. Bk. Co.). Teachers will find additional material in:—

Stevenson, Robt. L., *A Child's Garden of Verse*.

Dodge, Mary Mapes, *When Life is Young*.

Field, Eugene, *Love Songs of Childhood*.

Riv. Lit., Series No. 59, *Verse and Prose for Beginners*.

FIRST GRADE.

Sweet and Low	<i>Tennyson.</i>	The Princess.
The Owl and the Pussy Cat . .	<i>Edmund Lear.</i>	Child Life.
The Cloud	<i>Unknown.</i>	W. & F.
Little by Little	<i>Unknown.</i>	W. & F.
Children	<i>Longfellow.</i>	Cyr's 2d R.; Poems.
Lazy Little Cloud	<i>Unknown.</i>	W. & F.
Sleep, Baby, Sleep	<i>From the German.</i>	Child Life.
Booh	<i>Fields.</i>	
Runaway Brook	<i>Eliza Follen.</i>	Riv. Lit. Ser. No. 59
The Baby	<i>Geo. MacDonald.</i>	
My Shadow	<i>Stevenson.</i>	
Sleep, Baby, Sleep	<i>Prentiss.</i>	
Three Little Bugs in a Basket .	<i>Alice Cary.</i>	

SECOND GRADE.

The Children's Hour	<i>Longfellow.</i>	Poems.
Barefoot Boy (first ten lines) . .	<i>Whittier.</i>	Child Life.
The Boy and the Bird	<i>Unknown.</i>	W. & F.
Rain Drops	<i>Unknown.</i>	W. & F.
Seven Times One	<i>Jean Ingelow.</i>	Child Life.
Two and One	<i>Unknown.</i>	Peaslee, p. 11.
The New Moon	<i>Mrs. E. Follen.</i>	Child Life.
Twinkle, Little Star	<i>Unknown.</i>	W. & F.
If I were a Sunbeam	<i>Lucy Larcom.</i>	Poems.
A Little Bit of a Fellow	<i>Stanton.</i>	
To My Mother	<i>Field.</i>	
The Night Wind	<i>Field.</i>	
The Lullaby	<i>J. G. Holland.</i>	Ecl. 2d R.

THIRD GRADE.

The Brown Thrush	<i>Lucy Larcom.</i>	W. & F.
The Wonderful World	<i>Browne.</i>	S. S. 3d R.
Is It You?	<i>Unknown.</i>	W. & F.
By and By	<i>Unknown.</i>	W. & F.
I Once Had a Sweet Little Doll	<i>Chas. Kingsley.</i>	Peaslee, p. 42.
Selections from The Brook . . .	<i>Tennyson.</i>	Child Life.
The Dandelion	<i>Unknown.</i>	Classic Stories, p.94.
If Ever I See	<i>Lydia M. Child.</i>	Nature in Verse.
Drive the Nail Aright	<i>Unknown.</i>	W. & F.
Wynken, Blynken, and Nod . . .	<i>Eugene Field.</i>	S. S. 3d R.
Little Brown Hands	<i>M. H. Krout.</i>	Child Life.
Suppose	<i>Cary.</i>	W. & F.
America	<i>Smith.</i>	W. & F.
Lost	<i>Celia Thaxter.</i>	Poems.
Don't Give Up	<i>Phoebe Cary.</i>	Poems.

FOURTH GRADE.

The Happiest Heart	<i>Cheney.</i>	S. S. 4th R.
Something Left Undone	<i>Longfellow.</i>	Poems.
Suppose My Little Lady	<i>Phoebe Cary.</i>	Peaslee, p. 36.
Boys Wanted	<i>Unknown.</i>	W. & F.
The Fountain	<i>Lowell.</i>	Poems.
Three Companions	<i>Dinah Mulock Craik.</i>	Cyr's 3d R.
A Life Lesson	<i>Riley.</i>	Afterwhiles.
Fiftieth Birthday of Agassiz. . .	<i>Longfellow.</i>	Poems.
The Sculptor	<i>Bishop Doane.</i>	Peaslee, p. 83.
Another Blue Day	<i>Carlyle.</i>	Peaslee, 110.
The Barefoot Boy	<i>Whittier.</i>	S. S. 4th R.
A Night with a Wolf	<i>Bayard Taylor.</i>	Child Life.
The Good Time Coming	<i>Chas. Mackay.</i>	W. & F.
The Brook and the Wave	<i>Longfellow.</i>	Poems.
The Children's Hour	<i>Longfellow.</i>	Poems.
Short Quotations on blackboard.		

FIFTH GRADE.

Breathes There a Man	<i>Scott.</i>	W. & F.
The Village Blacksmith	<i>Longfellow.</i>	S. S. 4th R.
Break, Break, Break	<i>Tennyson.</i>	Poems.
The Vicar's Sermon	<i>Chas. Mackay.</i>	W. & F.
The Three Fishers	<i>Kingsley.</i>	Ap. 4th.

Nobility	<i>Alice Cary.</i>	W. & F.
Arrow and the Song	<i>Longfellow.</i>	Poems.
Landing of the Pilgrims	<i>Mrs. Hemans.</i>	W. & F.
How Sleep the Brave	<i>William Collins.</i>	W. & F. — Ap. 5th.
One by One	<i>Adelaide Procter.</i>	W. & F.
The Builders	<i>Longfellow.</i>	Poems.
The Will and the Way	<i>John G. Saxe.</i>	Peaslee, p. 114.
My Books	<i>John G. Saxe.</i>	Poems.
Childhood's Gold	<i>Lucy Larcom.</i>	Poems.
The Light That Is Felt.	<i>Whittier.</i>	Poems.
Decoration Day	<i>Longfellow.</i>	Poems.
Somebody's Mother	<i>Unknown.</i>	W. & F.
The Heritage	<i>Lowell.</i>	Poems.
Telling the Bees	<i>Eugene Field.</i>	Poems.
XXIII Psalm		Bible.
Short Quotations on the Blackboard.		

SIXTH GRADE.

Thanksgiving Hymn for California	<i>Mrs. Stetson.</i>	
The Day is Done (Selections from)	<i>Longfellow.</i>	Poems.
The Last Leaf (Selections)	<i>Holmes.</i>	Poems.
Ring Out, Wild Bells	<i>Tennyson.</i>	W. & F.
Soldier, Rest	<i>Scott.</i>	Ap. 4th R.
There Is Ever a Song Somewhere	<i>Riley.</i>	Afterwhiles.
The American Flag	<i>Drake.</i>	Peaslee, p. 182.
The Rainy Day	<i>Longfellow.</i>	Poems.
Burial of Sir John Moore	<i>Wolfe.</i>	Ap. 4th R.
Over and Over Again	<i>Pollard.</i>	W. & F.
Psalm of Life	<i>Longfellow.</i>	Poems.
Another Blue Day	<i>Carlyle.</i>	Peaslee, p. 110.
Love of Country	<i>Scott.</i>	Peaslee, p. 188.
Order for a Picture (Selections)	<i>A. Cary.</i>	Poems.
A Night with a Wolf	<i>Bayard Taylor.</i>	Child Life.
Short Quotations on the Blackboard.		

SEVENTH GRADE.

Vision of Sir Launfal (24 lines on June)	<i>Lowell.</i>	S. S. 4th R.
Westward—Columbus	<i>Joaquin Miller.</i>	S. S. 4th R.
Landing of the Pilgrims	<i>Mrs. Hemans.</i>	W. & F.

Bugle Song	<i>Tennyson.</i>	W. & F
To a Skylark	<i>Shelley.</i>	Poems
Sail On, O Ship of State . . .	<i>Longfellow.</i>	Poems.
What Constitutes a State . . .	<i>Jones.</i>	W. & F.
Crossing the Bar	<i>Tennyson.</i>	Poems.
Sound of the Sea	<i>Longfellow.</i>	Poems.
Snow Bound (Selections) . . .	<i>Whittier.</i>	Poems.
The Chambered Nautilus . . .	<i>Holmes.</i>	Poems.
Song of Marion's Men	<i>Bryant.</i>	Poems.
Warren's Address	<i>Pierpont.</i>	W. & F.
Daybreak	<i>Longfellow.</i>	Poems.
Liberty or Death (Parts) . . .	<i>Patrick Henry.</i>	Ap. 5th R.
Concord Hymn	<i>Emerson.</i>	S. S. 4th R.
Woodman Spare That Tree . .	<i>Geo. P. Morris.</i>	W. & F.
Abou Ben Adhem	<i>Leigh Hunt.</i>	Ap. 5th R.
Short Quotations on the Blackboard.		

EIGHTH GRADE.

My Captain	<i>Whitman.</i>	Poems.
Thanatopsis (Selections) . . .	<i>Bryant.</i>	Poems.
A Man's a Man for a' That . .	<i>Burns.</i>	Poems.
Remembered Music	<i>Lowell.</i>	Poems.
To a Water-Fowl	<i>Bryant.</i>	S. S. Gram., p. 60.
Old Ironsides	<i>Holmes.</i>	W. & F.
Battle Hymn of the Republic .	<i>Julia Ward Howe.</i>	
Liberty and Union	<i>Webster.</i>	W. & F.
The Shell	<i>Tennyson.</i>	H. of Oak VI.
Self Dependence	<i>Matthew Arnold.</i>	H. of Oak III; Poems.
Sun and Shadow	<i>Holmes.</i>	Poems.
Address at Gettysburg	<i>Lincoln.</i>	W. & F.
The Way to Heaven	<i>Holland.</i>	W. & F.
Selections from the Elegy . . .	<i>Gray</i>	Ap. 5th R.
True Rest	<i>Goethe.</i>	Peaslee, p. 169.
Flower in the Crannied Wall .	<i>Tennyson.</i>	Poems.
The Present Crisis (Stanzas I, 5, 6, 11, 15, 18)	<i>Lowell.</i>	Poems.
The Hand of Lincoln	<i>E. C. Stedman.</i>	Poems.
The Ladder of St. Augustine .	<i>Longfellow.</i>	Poems.
Contentment	<i>Lucy Larcom.</i>	S. S. 4th R., p. 109.
The Recessional	<i>Kipling.</i>	
Short Quotations on the Blackboard.		

8. HOME-READING LISTS.

The object of such a list is not to outline a prescribed course in literature, which pupils must follow and upon which promotion will be based, but rather to indicate a number of good books which teachers should use to awaken, on the part of their pupils, an appreciation for good literature. Teachers are expected to use tact in reading from these books or in having them read at home, the object being to create a taste for and a habit of reading good literature, and thus direct in some measure the reading which children naturally do. This end can not be attained by perfunctorily following any list, but by putting into the work the spirit which will enlist the pupil's interest and hearty co-operation. The amount of work to be done is left to the discretion of the pupil and teacher. Some pupils, due to conditions of health, would best omit the work entirely, but pupils in good physical condition ought to be encouraged to read at least two books each term.

During the first and second years, and also during part of the third year, the selections should be read and re-read to the pupils by the teacher. As pupils acquire ability to read, some of the easier books may be loaned to them to take home, or they may be referred to the Public Library. In grades above the Third, teachers will find it a good plan to begin a story with the class, and, after an interest has been awakened, refer the pupils to the book for the remainder of it. In all grades above the Second it would be advisable to keep on the blackboard the titles with library numbers, of a few of the better books selected from the list, and call the attention of pupils to them. Pupils have not the judgment to know what is best, and it is the duty of the teacher to guide them in their selections; to be able to do this intelligently teachers should familiarize themselves with the books suitable for children of their grade.

The following list, recommended in part by the Library Section of the San Francisco Teachers' Club, is suggested to teachers:—

FIRST AND SECOND GRADES.

(To be read by the teacher.)

Adams	<i>Nursery for Youngest Readers.</i>	
Andersen, H. C.	<i>The Fir Tree.</i>	in j 291. An 26 d
“ “	<i>The Little Match Girl</i>	in j 291. An 26 d
“ “	<i>Pea Blossoms</i>	in j 291. An 26 f
Cox, Palmer	<i>Brownies at Home.</i>	j 821. C 83
Dodge, M. M.	<i>Rhymes and Jingles</i>	j 821. D 66 r
“ “	<i>When Life is Young</i>	j 821. D 66
Frost, W. H.	<i>Wagner Story-Book</i>	j 291. F 92
Gould, S. B.	<i>Three Bears.</i>	in j 291. G 73
Grimm.	<i>The Bremen Town Musicians</i>	in j 291. G 88 g
Jackson, H. M. F.	<i>Cat Stories</i>	j J 13. I
“	<i>Letters from a Cat</i>	in j J 13. I
“	<i>Mammy Tittleback and Her Family.</i>	in j J 13. I
Jacobs, J.	<i>Children in the Wood</i>	in j 291. J 15 m
Lane, M. A. S.	<i>Stories for Children</i>	j 810. L 24
Magarine	<i>Our Dumb Animals.</i>	
Mathews, J. H.	<i>Flowerlets.</i>	
“	<i>Little Friends at Glenwood.</i>	
Mulock, D. M.	<i>Adventures of a Brownie</i>	j 291. M 91
“	<i>Cinderella,</i>	in j 291. M 91 t
“	<i>Hop-o-my-thumb.</i>	in j 291. M 91 f
“	<i>Jack and the Bean-Stalk</i>	in j 291. M 91 f
“	<i>Little Red Riding-Hood</i>	in j 291. M 91 f
“	<i>Little Sunshine's Holiday.</i>	j M 91. 5
Peabody	<i>Five Little Peas.</i>	
Sanford, D. P.	<i>Frisk and His Flock.</i>	j Sa 52. 2
“ “	<i>Pussy Tip-toe's Family</i>	j Sa 52. 3
“ “	<i>Rose, Tom, and Ned</i>	j Sa 52. 4
Scudder, H. E., ed.	<i>Book of Folk Stories</i>	j 291. Scu 2
“ “	<i>Children's Book</i>	j 291. Scu 2 c
Stickney, J. H., ed.	<i>Child's Æsop's Fables</i>	j 291. Ae 86 s
Stoddard, W. O.	<i>Adventures in Fairyland.</i>	
“ “	<i>Little Red Riding-Hood (verse).</i>	
Stowe, H. B.	<i>Queer Little People</i>	j 590. St 75
Wiggin, K. D.	<i>Story of Patsy</i>	j W 635. 11
Wiggin-Smith	<i>Story Hour.</i>	j W 635. 18

THIRD GRADE.

Bouvet, Margaret	<i>Prince Tip-Top</i>	j B 665. 3
Brine, Mary D.	<i>Little Lad Jamie.</i>	
“ “	<i>Bessie and Bee</i>	j B 775. 3.

- Brooks, E. S. . . . *True Story of George Washington* . . . j B. W 27 b r
 Burnett, Frances H. . . *Editha's Burglar* . . . j B 93. 1
 " " . . *Two Little Pilgrims' Progress* . . . j B 93. 7
 Dodge, M. M. . . . *When Life Is Young* . . . j 821. D 66
 Eggleston, E. . . . *Stories of Great Americans* . . . j 810. Eg 33 g
 Fletcher, R. H. . . . *Marjorie and Her Papa* . . . j F 633. 1
 Jackson, H. M. F. . . *Letters from a Cat* . . . in j J 13. 1
 Lang, A. . . . *Prince Darling* . . . in j 291. L 25 b
 " . . . *The Princess on the Glass Hill* . . . in j 291. L 25 b
 " . . . *The Sleeping Beauty in the Wood* . . in j 291. L 25 b
 Miller, O. T. . . . *Four-handed Folk* . . . j 599. M 61
 Pierson, C. D. . . . *Among the Meadow People* . . . j 590. P 61
 Plympton, A. G. . . *The Black Dog* . . . j P 745. 5
 Richards, Laura E. . . *Captain January* . . . j R 39. 1
 " " . . *Five-Minute Stories* . . . j R 39. 9
 Tucker, C. M. . . . *Fannie Frisket*.
 Wesseehoeft, S. F. . *Jerry the Blunderer* . . . j 291. W. 51 j
 White, E. O. . . . *Little Girl of Long-Ago* . . . j W 58. 3
 " " . . . *When Mollie Was Six* . . . j W 58. 5

FOURTH GRADE.

(Any Third Grade book not previously read.)

- Abbott, J. S. C. . . . *Life of Paul Jones* . . . j B. J 73 a
 Alden, W. S. . . . *Adventures of Jimmy Brown* . . . j Al 25. 1
 Andrews, Jane . . . *Seven Little Sisters Prove Their Sisterhood*. j An 283. 1
 Bamford, M. E. . . . *Talks by Queer Folks* . . . j. 590. B 217
 Beckwith, H. . . . *In Mythland*.
 Bouvet, Margaret . . *Sweet William*.
 " " . . *Child of Tuscany* . . . j B 665. 1
 Burnett, Frances H. . *Little Lord Fauntleroy* . . . j B 93. 3
 " " . . *Sara Crewe* . . . j B 93. 6
 " " . . *Little Saint Elizabeth* . . . j B 93. 4
 " " . . *Piccino* . . . j B 93. 5
 Carroll, Lewis . . . *Alice in Wonderland* . . . j 291. C 23
 Church, E. R. . . . *Home Animals* . . . j 590. C 47 h
 " " . . *Little Neighbors at Elmridge* . . . j 590. C 47 n
 Crockett, S. R. . . . *Sweetheart Travelers* . . . j C 87. 4
 Davis, A. C. . . . *Stories of the United States*.
 Eaton, F. S. . . . *Dollikens the Miser* . . . j E a 85. 5
 Grimm, J. T. and W. K. *German Household Tales* . . . j 291. G 88 g
 Grimms, R. M. S. . . *Man Without a Heart*.
 Hale, L. P. . . . *Last of the Peterkins* . . . j H 133. 2
 " " . . . *Peterkin Papers* . . . j H 133. 1

- Harris, Joel C. . . . *Mr. Rabbit at Home* j 291. H 24 m
 " " . . . *Three of Us*.
 Harrison, Elizabeth . . *In Story-Land*.
 Hood, Margaret E. . . *Tales of Discovery on the Pacific Coast* . . j 970. H. 76
 Jackson, H. M. F. . . *Bits of Talk* j 814. J 13
 Jamison, C. V. . . . *Lady Jane* j J 24. 1
 Kirby, M. and E. . . *Aunt Martha's Corner Cupboard*.
 " " . . *The World by the Fireside*.
 Lang, A. *Animal Story-Book* j L 25. 1
 Litchfield, G. D. . . *Little He and She*.
 Longfellow, Henry W. *Hiawatha* 821. 888
 Menefee, Maude . . *Child Stories from the Masters*.
 Molesworth, M. . . *Children of the Castle*.
 Moodey, Martha S. . *Little Millionaire*.
 Mulock, D. M. . . *Adventures of a Brownie* j 291. M 91
 " " . . *A Hero* M 960. 10
 " " . . *Little Lame Prince* j 291. M 91 m
 Ogden, Ruth . . . *A Loyal Little Red-Coat* j O g 2. 5
 Pratt, Mara L. . . *Stories of Great Men*.
 Richards, Laura E. . *Queen Hildegard* j R 39. 2
 " " . . *Queen Hildegard's Holiday* j R 39. 3
 " " . . *Captain January* j R 39. 1
 Saunders, Marshal . *Beautiful Joe* j Sa 89. 2
 Schwatka, F . . . *Children of the Cold* j Sch 9. 1
 Sewell, Anna . . . *Black Beauty* j Se 83. 1
 Sidney, M . . . *Five Little Peppers, and How They Grew* . j Si 15. 1
 " " . . *Five Little Peppers Midway* j Si 15. 2
 " " . . *Five Little Peppers Grown Up* j Si 15. 3
 " " . . *Phronsie Pepper* j Si 15. 7
 Sprague, R. V. . . *The Shepherd's Dream*.
 Stockton, Frank R . *The Clocks of Rondaine* j 291. St 6 c
 Thaxter, Celia . . *Stories and Poems for Children* j T 334. 1
 Thomas, E. M . . *In Sunshine Land* j 821. T 36
 Woolsey, S. C . . *What Katy Did* j C 775. 8

FIFTH GRADE.

(Any Fourth Grade book not previously read.)

- Alcott, Louisa M . . *An Old-Fashioned Girl* j Al 15. 17
 Alden, W. S . . . *Cruise of the Canoe Club* j Al 25. 3
 Andrews, Jane . . *Ten Boys on the Road from Long-Ago to
 Now* j An 283.4
 Brewster, M . . . *Under the Water-Oaks* j B 755. 1
 Bunyan, John . . . *Pilgrim's Progress* j B 888. 1

- Church, Alfred J . . . *Three Greek Children* j C 47. 13
- Carpenter, Frank G . . . *Geographical Reader—Asia* j 915. C 22
- “ “ . . . *Geographical Reader—S. Am* j 918. C 22
- Dodge, Mary Mapes . . . *Hans Brinker* j D 66. 2
- “ “ . . . *Donald and Dorothy* j D 66. 1
- Ewing, J. H . . . *Jackanapes* j Ew 55. 2
- “ “ . . . *Jan of the Mill* j Ew 55. 3
- “ “ . . . *Story of a Short Life* j Ew 55. 11
- Field, Eugene . . . *Love Songs of Childhood* j 821. F 45
- Fernald, C. B. . . . *The Cat and the Cherub* F 362. 3
- Frost, W. H. . . . *Wagner Story-book* J 291. F 92
- Gray, G. Z *The Children's Crusade* 940 248
- Henty, G. A . . . *True to the Old Flag* j H 39. 83
- Ingersoll, E . . . *Friends Worth Knowing* j 590. In 43
- Jackson, H. H . . . *Bits of Talk for Young Folks* j 814. J 13
- Jak *Birchwood* j J 21. 5
- Jordan, David Starr . . *Matka and Kotik* j J 76. 1
- Kingsley, Charles . . *Greek Heroes* j 291. K 61
- Kingston, W. H. G. . . *At the South Pole* j K 616. 3
- “ “ . . . *Stories of the Sagacity of Animals* (2 Vols.) j 599. K 61
- Kipling, Rudyard . . *The Jungle-Book* j 291. K 62
- Martineau, Harriett . . *Peasant and the Prince* j M 363. 4
- MacDonald, George . . *At the Back of the North Wind* j 291. M 14 d
- Miller, Olive Thorne . . *Four-Handed Folk* j 599. M 61
- Noel, M *Buz; The Life and Adventures of a Honey Bee* j 595. N 68
- Page, T. N *Among the Camps* j P 143. 1
- Perry, Nora *Little Daughters of the Revolution* j P 425. 6
- Plympton, A. G . . *Dear Daughter Dorothy* j P 745. 2
- “ “ . . . *Dorothy and Anton* j P 745. 3
- “ “ . . . *Little Sister of Wilifred* j P 745. 6
- “ “ . . . *Mary Jane Papers* j P 745. 1
- “ “ . . . *Wamolasset* j P 745. 7
- Pratt, Mara L . . . *American History Stories* (4 Vols.) . . . j 973. P 88
- “ “ . . . *Story Land of Stars.*
- “ “ . . . *Stories of England.*
- “ “ . . . *Stories of Northern Europe.*
- Pyle, Howard . . . *The Wonder Clock* j 291. P 99 w
- Richards, Laura E . . *Melody; The Story of a Child* j R 39. 6
- “ “ . . . *When I Was Your Age* j B. R 39
- Setoun, G *Child-World* j 821. Se 7
- Stockton, F. R . . . *Tales out of School* j 910. St 6
- “ “ . . . *Roundabout Rambles in Lands of Fact and Fancy* j 910. St 6 r
- Thompson, E. Seton-*Wild Animals I Have Known.* 596. T 37

Thompson, E. Seton-	<i>Biography of a Grizzly</i>	596. 49
Tiffany, Nina Moore .	<i>Pilgrims and Puritans</i>	j 974. M 78
" "	<i>Colony to Commonwealth</i>	j 974. M 78 f
Waite, H. R	<i>A Boy's Workshop</i>	j 600 B 69 w
Warner, Chas. D. . .	<i>Being a Boy</i>	j W 243. I
Weyman, S J	<i>Little Wizard</i>	W 549. 9
Yonge, Charlotte M .	<i>Book of Golden Deeds</i>	j 920. Y 8 g

SIXTH GRADE.

Alcott, Louisa . . .	<i>Little Men</i>	j Al 15. II
" "	<i>Little Women</i>	j Al 15. 13
Aldrich, Thos. Bailey	<i>Story of a Bad Boy</i>	j Al 28. I
Andrews, Jane . . .	<i>Stories Mother Nature Told Her Children</i> .	j An 283. 3
Ballantyne and Richardson }	<i>Man on the Ocean</i>	j 797. B 212
Baylor, F. C . . .	<i>Juan and Juanita</i>	j B 34. 3
Boyesen, H. H . . .	<i>Boyhood in Norway</i>	j B 69. 2
" "	<i>Modern Vikings</i>	j B 69. 3
Brooks, N	<i>Boy Emigrants</i>	j B 793. I
Brown, J	<i>Rab and His Friends</i>	j B 814. I
Catherwood, M. H .	<i>Rocky Fork</i>	j C 28. I
" "	<i>Heroes of the Middle West</i> .	
Church, Alfred J .	<i>Stories of the Old World</i>	j C 47. 20
" "	<i>Stories from Homer</i>	j C 47. 6
" "	<i>Stories from Virgil</i>	j C 47. 15
Cox, Sir G. W . . .	<i>Tales of the Gods and Heroes</i>	j 291. C 83 t
Custer, Mrs. E . . .	<i>Boots and Saddles</i>	923 1778
Dana, R. H	<i>Two Years Before the Mast</i>	9177. 32
Davis, R. H	<i>Stories for Boys</i>	j D 296. I
De Foe, Daniel . . .	<i>Robinson Crusoe</i>	j D 365. I
Diaz, A. M	<i>William Henry Letters</i>	j D 544. 4
Drake, S. Adams . .	<i>The Taking of Louisburg</i>	j 972. D 78 t
Farmer, S. H	<i>Story-Book of Science</i>	j 500. F 22
Grimm, J. S. & W. K .	<i>German Household Stories</i>	j 291. G 88 g
Guerber, H. A . . .	<i>Story of the Chosen People</i>	j 933. G 93
" "	<i>Story of the English</i>	j 942. G 93
" "	<i>Story of the Greeks</i>	j 938. G 93
" "	<i>Story of the Romans</i>	j 937. G 93
Hall, Captain	<i>Adrift in the Ice Fields</i>	j H 14. I
Hawthorne, N . . .	<i>Tales of the White Hills</i>	j H 314. I
Holder, C. F	<i>Marvels of Animal Life</i>	j 590. H 71 m
Hooke, S	<i>Little People</i> .	
Jamison, C. V	<i>Toinette's Philip</i>	j J 24. 2
Jewett, Sara Orne . .	<i>Betty Leicester</i>	j J 55. I

Jewett, Sara Orne . . .	<i>Play Days</i>	j J 55. 4
Johnson, R	<i>End of a Rainbow</i>	j J 63. 1
“ “	<i>Phaeton Rogers</i>	j J 63. 2
Jordan, David Starr . . .	<i>Matka and Kotik</i>	j J 76. 1
Kingsley, Chas	<i>Water-Babies</i>	j 291. K 61 w
Kipling, Rudyard	<i>Jungle-Book</i>	j 291. K 62
“ “	<i>Second Jungle-Book</i>	j 291. K 62 s
Kirby, M. and E	<i>Sea and Its Wonders</i>	j 551. K 63
Larcom, Lucy	<i>My New England Girlhood</i>	j B. L 32
McMurry, Chas.	<i>Pioneer History Stories of the Mississippi Valley</i>	
Miller, Olive Thorne . . .	<i>Four-Handed Folk</i>	j 599. m 61
Molesworth, M. S.	<i>Grandmother Dear</i>	j M 73. 6
“ “	<i>The Rectory Children</i>	in j M 73. 16
“ “	<i>Two Little Waifs</i>	in j M 73. 6
“ “	<i>Us; An Old-fashioned Story</i>	j M 73. 16
Ober, F. A	<i>Crusoe's Island</i>	j 918. Ob 2 s
Ouida	<i>Dog of Flanders</i>	j Ou 43. 2
Richards, Laura E.	<i>Nautilus</i>	j R 39. 7
“ “	<i>Narcissa</i>	R 516. 4
Seawell, M. E.	<i>Little Jarvis</i>	j Se 12. 2
“ “	<i>Midshipman Paulding</i>	j Se 12. 4
“ “	<i>Rock of the Lion</i>	j Se 12. 6
Scudder, Horace E.	<i>The Bodley Books</i> (8 vols.)	j Scu 2. 1-8
Thorpe, M.	<i>King Frost</i>	j 551. T 39
Thompson, E. Seton-	<i>Trail of the Sandhill Stag</i>	T 471. 9
Towle, G. Makepeace.	<i>Magellan</i>	j B. M 27. t
“ “	<i>Drake, the Sea-King of Devon</i>	j B. D 78 t
“ “	<i>Vasco da Gama</i>	j B. G 14 t
“ “	<i>Heroes and Martyrs of Invention</i>	j 920. T 65
Wagner, Harr.	<i>Pacific History Stories</i>	v. 1. j 970. W 12
“ “	<i>Pacific Nature Stories</i>	v. II.
Wiggin, Kate Douglas.	<i>Timothy's Quest</i>	j W 635. 14
“ “	<i>Polly Oliver's Problem</i>	j W 635. 8
Wyss, J. D.	<i>Swiss Family Robinson</i>	j W 99. 1
Yonge, Charlotte M.	<i>The Daisy Chain</i>	Y 555. 8
“ “	<i>The Trial: More Links of the Daisy Chain</i>	Y 555. 33
“ “	<i>Pillars of the House</i> (2 vols)	Y 555. 27

SEVENTH GRADE.

(Any Sixth Grade book not previously read.)

Ayrton, C.	<i>Child Life in Japan</i>	j 915. A y 74
Austin, Jane G.	<i>Standish of Standish</i>	A 936. 12
Baldwin, James	<i>Story of the Golden Age</i>	j 291. B 19 g

- Bolton, Sarah K . . . *Famous Voyagers* j 920. B 63 v
 " " . . . *Poor Boys Who Became Famous* j 920. B 63 P
 " " . . . *Lives of Girls Who Became Famous* j 920. B 63 g
 Boyesen, H. H. . . . *Against Heavy Odds* j B 69. 1
 Brooks, E. S. . . . *Century Book for Young Americans* j 342. B 79
 Brooks, N. *Boy Emigrants* j B 793. 1
 " " *Boy Settlers* j B 793. 2
 Buckley, Arabella . . . *Fairy-Land of Science* 504. 20
 " " . . . *The Winners in Life's Race* j 596. B 85
 Butterworth, H. . . . *Zigzag Journeys in Europe* j 914. B 98 e
 Carroll, L. *Through the Looking-Glass* j 291. C 23 t
 Church, Alfred J. . . . *Stories from the Bible* j C 47. 1
 Coffin, Chas. C. . . . *Old Times in the Colonies* j 973. C 65 a
 " " . . . *Winning his Way* j C 65. 2
 " " . . . *Boys of '76* j 973. C 65 b
 Cooper, J. Fenimore . *Last of the Mohicans* j C 78. 1
 " " . . . *The Spy* in j C 78. 4
 Custer, Mrs. Elizabeth. *Tenting on the Plains* 973. 659
 Dana, R. H. *Two Years before the Mast* 9177. 32
 Douglas, A. M. . . . *Heroes of the Crusades* j 920. D 74
 Drake, Sam'l Adams. *Watchfires of '76* j 973. D 78 w
 Earle, Alice Morse . *Home Life in Colonial Days* 397. 15
 " " . . . *Child Life in Colonial Days* 397. 16
 Eyster, N. B. *A Colonial Boy* j E y 7. 1
 Fassett, James H. . . *Colonial Life in New Hampshire*.
 Fiske, John *The War for Independence* j 973. F 54
 Forestier, Auber . . *Echoes from Mistland* 831. 176
 Franklin, Benjamin . *Autobiography* j B. F 85
 Greene, Homer . . . *Coal and the Coal Mines* 628. 246
 Hale, Edw. E. . . . *Life of Geo. Washington Studied Anew* . j B. W 27 h
 Henty, G. A. *With Wolfe in Canada* j H 39. 93
 Hittell-Faulkner. . . *Brief History of California, II*.
 Higginson, Mrs. S. J. *Java the Pearl of the East* j 919. H. 53
 Hawthorne, Nathaniel. *House of Seven Gables*.
 Irving, Washington . *Knickerbockers' History of N. Y.* 975. 7
 Knox, T. W. *Travels of Marco Polo* j 910. P 76 k
 La Fontaine, J. de . . *Fables* in j 291. Ae 86 s
 Lang, A., ed. *Blue Fairy Book* j 291. L 25 b
 " " *Green Fairy-Book* j 291. L 25 g
 " " *Red Fairy-Book* j 291. L 25 r
 " " *Yellow Fairy-Book* j 291. L 25 y
 Lee, Van Phou . . . *When I Was a Boy in China* j 915 L 51
 Lodge, H. C., and } *Hero Tales from American History* . . j 973. L 82 h
 Roosevelt, T. . . . }
 Loughhead, F. H. . . *Abandoned Claim* j L 92. 1

- Marden, O. S. . . . *Success* j 170. M 33 s
 McMurry, Chas. . . . *Pioneer History Stories of the Mississippi Valley*.
 Munroe, K. . . . *Flamingo Feather* j M. 92. 5
 " " *Fur-Seals' Tooth* j M 92. 6
 " " *Snow-Shoes and Sledges* j M 92. 10
 Ober, F. A. *Crusoe's Island* j 918. Ob 2 c
 " " *Knockabout Club in Search of Treasure* . j 9178. Ob 2
 Perry, Nora *Three Little Daughters of the Revolution* . j P 425. 6
 Pyle, H. *Men of Iron* j P 99. 2
 Pratt, Mara L. . . . *Stories of India* j 954. P 88
 " " *Stories of China* j 951. P 88
 " " *Stories of Australia*.
 " " *Stories of the Great West* j 977. P 88
 " " *Cortez and Montezuma* j 920. P 88 c
 " " *Pizarro*.
 Scudder, Horace E. . *Life of Washington* j B. W 27 s
 Seawell, M. E. . . . *Twelve Naval Captains* j 920. Se 12
 Starr, Frederic. . . . *The American Indians* j 572. St 27
 Stockton, Frank R. . *Personally Conducted* j 914. St. 63
 Thompson, E. Seton- *Wild Animals I Have Known* j 596. T 37
 " " *Biography of a Grizzly* 596. 49
 Towle, G. Makepeace *Pizarro; His Adventures and Conquests* . j B. P 689 t
 Wright, H. C. *Children's Stories in American History* . j 973. W 93
 " " *Children's Stories in American Literature*. j 8201. W 93
 Wright, M. Osgood . *Wabeno the Magician* j 291. W 933 W
 Young, C. *Armourer's 'Prentices* Y 555. 1
 " *The Caged Lion* Y 555. 3

EIGHTH GRADE.

(Any Seventh Grade book not previously read.)

- Asbjörnsen, P. C. . . *Popular Tales from the Norse* j 291. As 14 p
 Baldwin, J. *Story of Roland*. j 291. B 19 r
 " *Story of Siegfried* j 291. B 19 s
 Barnes, J. *For King or Country* j B 26. 1
 " *Naval Actions of the War of 1812* 973.936
 " *A Loyal Traitor*. j B 26. 4
 Brooks, E. S. *True Story of U. S. Grant* j B. G 76 b
 Bolton, Sarah K. . . *Famous Types of Womanhood* 920. 452
 " " *Famous Men of Science* j 920. B 63 s
 Bunyan, J. *Pilgrim's Progress* j B 888. 1
 Burroughs, J. . . . *Wake-Robin* 824. 301
 Byron, Lord *Prisoner of Chillon* in 821. 1167
 Cable, Geo. W. . . . *The Cable Story Book*.

- Chester, E *Girls and Women* 176. 2
- Church, A. J *Stories from English History to Charles I.* j C 47. 23
- “ “ *Stories from the Bible* j C 47. 1
- “ “ *Young Macedonian* j C 47. 28
- Clemens, Sam'l (Mark Twain) *Prince and Pauper* j T 91. 2
- Coffin, Chas. C *Building of the Nation* j 973. C 65 c
- “ “ *Drumbeat of the Nation* j 973. C 65 e
- “ “ *Freedom Triumphant* j 973. C 65 h
- Cooper, J. Fenimore *The Pilot* C 777. 26
- Darwin, Charles *Voyage of the Beagle* j 508. D 25
- Davis, M. E. M *Under Six Flags*.
- Dickens, Charles *Child's History of England* j 942. D 55
- “ “ *David Copperfield* D 548. 14
- “ “ *Tale of Two Cities* D 548. 4
- Du Chaillu, P. B *Wild Life under the Equator* j 916 D 85 w
- Eliot, George *Mill on the Floss* E 426. 6
- Fouqué, Baron *Undine* L 235. 6
- Gibson, W. H *Eye Spy* 590. 176
- Gilman, A., ed *Magna Charta Stories* j 940. G 42
- Griffis, Wm. E *Brave Little Holland* j 949 G 87
- Goldsmith, Oliver *Vicar of Wakefield* j G 57. 1
- Grinnell, G. B *Blackfoot Lodge Tales* 899. 49
- “ “ *Stories of the Indian* 970. 199
- Hale, Edw. E *Man without a Country* H 161. 9
- Hamerton, P. G.. . . . *Chapters on Animals*. j 590. H 17
- Henty, G. A. *Dragon and the Raven; or, The Days of King Alfred* j H 39. 29
- “ *In the Reign of Terror* j H 39. 46
- “ *With Clive in India. (18th Century)*. j H 39. 89
- “ *Wulf the Saxon. (Norman conquest)* j H 39. 95
- Hughes, T. *Tom Brown's School Days* j H 875. 1
- Inman, H. *Old Santa Fé Trail* 977. 224
- Jackson, Helen Hunt. *Ramona* J 127. 4
- Janvier, T. A. *Aztec Treasure-House*. J 358. 1
- Kipling, Rudyard *Captains Courageous* j K 627. 3
- Lamb, C. *Adventures of Ulysses* j 291. L 16
- Lang, A. *Red True Story Book*. j L 25. 5
- “ *True Story Book*. j L 25. 6
- Lanier, S., ed. *Boy's Percy* j 821. P 41 1
- Lummis, C. F. *Spanish Pioneers in America*. j 970. L 97
- “ *Tramp across the Continent* 9173-543
- Manning, A. *Household of Sir Thomas More* 923-449
- Marden, O. S. *Pushing to the Front*. j 920. M 33
- Matthews, Brander. . . . *Introduction to American Literature* 820. 252

Miller, Olive Thorne.	<i>Bird Ways</i>	598. 124
Optic, Oliver.	<i>Up and Down the Nile</i>	j Op 73. 7
Page, Thos. N.	<i>Two Little Confederates</i>	j P 143. 2
Repplier, Agnes	<i>Book of Famous Verse</i>	j 821. R 30
Richardson, A. S.	<i>Stories from Old English Poetry</i>	j 821. R 393
Rolfe, William J.	<i>Shakespeare the Boy</i>	928. 904
Seawell, M. E.	<i>Decatur and Somers</i>	j Se 12. 1
Scott, Walter	<i>The Talisman</i>	S 431. 5
" "	<i>Ivanhoe</i>	j Sco 8.3
Stevenson, Robt. L.	<i>Treasure Island</i>	j St 46. 4
Stockton, Frank	<i>Beeman of Orn and Other Fanciful Tales</i>	j 291. St 6
Stoddard, C. A.	<i>Cruising among the Caribbees</i>	9179. 63
Stowe, Harriet B.	<i>Uncle Tom's Cabin</i>	j St 75. 3
Twain, Mark	<i>Tom Sawyer</i>	j T 91. 3
Warner, Charles D.	<i>A Hunting of the Deer</i>	j 796. W 24
Yonge, Charlotte	<i>Unknown to History</i>	Y 555. 37

9. REFERENCES.

The following books and articles are easily accessible and will be found very helpful by teachers of Reading and Literature:—

Arnold, Sarah S., *Waymarks for Teachers*, pp. 152-176.

Balliet, T. M., Association of Ideas in Reading, *Proc. N. E. A.*, 1893, pp. 756-760.

Chase, Susan F., Choice of Reading for Early Adolescent Years, *Proc. N. E. A.*, 1898, pp. 1011-1015.

Clark, S. H., *How to Teach Reading in the Public Schools*.

Clark, S. H., Reading Aloud in Public Schools, *Educ. Rev.*, Vol. XV., pp. 255-268 (March, 1898).

Corson, Hiram, Voice Culture in Relation to Literary Culture. *Atl. Mo.*, June, 1895.

Griffith, Geo., Course of Reading for Children at Utica, N. Y. *Educ. Rev.*, Vol. XV, pp. 65-70 (Jan., 1899).

Hardy, Geo. E., The Function of Literature in Elementary Schools, *Educ. Rev.*, Vol. II, pp. 140-150 (July, 1891).

McMurry, Chas., *Special Method for Reading*, (Pub. Sch. Pub. Co., 40 c.). Very good.

Scudder, H. E., *Literature in the Public Schools*, *Atl. Mo.*, Aug., 1888.

Thurber, Saml., How to Make the Study of Literature Interesting, *Sch. Rev.*, Vol. VI, pp. 483-500, (Sept., 1898).

Van Liew, Lucas, *Phonics and Reading*, (Pub. Sch. Pub. Co., 35c.).

II. HISTORY AND CIVIL GOVERNMENT.

1. INTRODUCTION.

The Course of Study in United States History has been outlined with the purpose of developing the historical sense of the child by a carefully planned line of work which shall continue from the First to the Eighth Grade inclusive. In the Primary Grades the work does not require set lessons so much as a close correlation of the work with that of Literature and Geography. The object of the earlier work is to develop a stock of social ideas; to develop and strengthen the child's imagination and ability to picture, and to get a suggestive background upon which to project men and events. The primary work is a period for concrete work,—for work with the sandboard and the blackboard,—for work in imagery and representation. Picture-making and representation are more important than forming judgments during this earlier period.

The biographical element must be kept prominent. Children under ten care little for events except as they are bound up with the life of individuals.

It is very important that teachers doing this earlier work should have a clear idea of its importance as a preparation for the imaginative and reflective work of the Grammar Grades. If the work is to be done well, and if it is to lay the proper foundation for later work, the teacher must see beyond the little piece of work which she is to do, and recognize its importance as a preparation for the work that is to follow.

As the work progresses, the emphasis should be shifted gradually from picture-making, representation, and the study of child life to the study of the lives and deeds of a number of great historical per-

sonages, the biographical element being kept prominent. By the time the Fourth Grade is reached the pupils should be reading stories of the lives of great real heroes and their struggles with untamed nature and the evil or opposing tendencies of those with whom they came in contact. The judgment should be called into play and the actions approved or condemned. This gives an opportunity for the formation of the best kind of moral judgments, and is worth more in the teaching of morals than a half-dozen talks on theoretical morality.

As a gradual outgrowth of the story of the real hero, should come, by the time the Fourth or Fifth Grade is reached, the picturing of events themselves by means of the story. The hero is still prominent, but woven about him is a story of events which carries the child along spellbound with interest. The next step,—that to the study of the history of our country, with events more prominent than individuals,—is but an easy one. The child, with years of training in imagery and representation and the study of the deeds of individuals, comes to the work in history with the historical sense awakened and finds the work something more than a dry chronological recital,—something more than Indian fights, wars, and the struggles of politicians.

2. FUNDAMENTAL PRINCIPLES.

The nature of the work to be done may be indicated by the following consideration of principles and methods:—

First. In the Primary Grades the objects are:—

- (a) To supply the pupils with pictures of past life.
- (b) To give the pupils practice in forming pictures for themselves of the lives of persons of former times.
- (c) To lead the pupils to an appreciation of past events in a historic way.
- (d) To assist the pupils to connect their own time with the

persons and the events of the past, by means of association with places, with persons, and to some extent, with ideas.

(e) To utilize the common knowledge and home experience of children as a basis upon which to build new social and historical conceptions.

Second. There are four principal ways of accomplishing these objects in the Primary Grades, all of which should be employed:—

(a) By means of easy historical reading or by stories told or read to the pupils or developed with them.

(b) By means of instruction in connection with the subject-matter of other lessons, as Geography and Literature.

(c) By means of Local History, associated with Geography.

(d) By means of Biography and the observance of national holidays.

Third. In the *Grammar Grades* work should continue along the lines already laid down, with the object of further development of the historic sense and the appreciation of the historical derivation of the present; at the same time there should be added the beginnings of a more definite employment of the powers of judgment and reasoning and more definite practice in clear statement of fact, in making a simple record of facts drawn from several sources, in marshaling historic facts in logical relation to a simple historic query or problem, and in discrimination between the essential and the non-essential with reference to a historic truth.

Fourth. The methods for the more systematic study in the *Grammar Grades* are:—

(a) Reading of stories, biographies, descriptions and discussions by individual pupils, with practice in telling the story or some essential part of it to the class, and in answering questions drawn from it.

(b) Graphic representation or the employment of maps to present historic facts and the construction of maps to indicate historic changes, such as growth of territory, rise of cities, extension of slavery, etc.

(c) Recitation from the text-book, the aim being to restate fully and clearly the facts given in regard to a particular topic or question. This work must rest upon memory, but always memory of the thought,—*never merely the recalling of words and phrases.*

(d) Discussion employed for especially valuable or fruitful questions, by bringing together for comparison and criticism statements or judgments from a number of writers upon the same point.

(e) Study of local history, growing into personal investigation and determination of simple questions relating to the pupils' own community, but illustrative of some element of past life.

(f) Investigation, or the working out and determining of a simple problem from authentic sources or from secondary writers who have closely followed the original authority.

3. ILLUSTRATION OF METHODS.

PRIMARY GRADES.

STORIES OF CHILD LIFE.—Such a story as Kablu, the little Aryan Boy, (in Jane Andrews's *Ten Boys*,) or Hiawatha form a natural starting-point for history work, and are intensely interesting to First Grade children. Such stories should be told by the teacher, pictured on the blackboard and on the sandboard, all the details talked over with the children in a most concrete way, and the material used as a basis for oral language and for blackboard reading-lessons and from such a supplemental reader as *The Hiawatha Primer*.

THE STORY FOR DEVELOPMENT.—The story of Robinson Crusoe is a good type of the story for class development. The story is a story of the realities of the physical world, and can be reasoned out by Second Grade children when directed by the questions of the teacher. Every question can be answered by an appeal to those simple laws of nature which the child is already familiar with as a part of his home and outdoor experiences. The work may be

done wholly as oral language work. The historical story which is capable of oral development offers the teacher excellent opportunities for developing reasoning power and for holding pupils to a line of thought.

BIRTHDAYS AND HOLIDAYS.—These offer an opportunity for historical and patriotic work, and contribute to the development of a historical and literary appreciation. Teachers should regulate the time given to such work and the nature of the exercise by the age of the pupils.

LOCAL HISTORY.—This should come in as a part of the study of Local Geography in the Third and Fourth Grades. Stories relating to Local History should be told by the teacher, or built up as a result of inquiries on the part of the pupils. Stories of this kind are much less effective when read. There should be a clear idea of geographical location, both the sandboard and the map being used unless the locality is familiar to the children.

SUPPLEMENTAL READING.—Much of this is of a historical nature, with a view to a close correlation of Reading and History. As fast as pupils acquire ability to read as a result of the drill-work in reading it should be applied in the reading of literature and history. Local history stories may be mimeographed on manila cards, about five by seven inches in size, and used as supplemental reading.

It should be clearly understood that the object of this earlier work is not to memorize certain facts but to awaken the historical sense and lead pupils to feel something of the spirit of history.

Teachers of Grades One to Five should consult such references as Gordy and Twitchell (Part I), Mace, McMurry, and Wilson.

GRAMMAR GRADES.

HOME READING.—This should follow along the lines of the work of the Primary Grades, but with a broadening field and with a more definite product on the part of the pupil. The reading must be done

mostly out of school and with an individual choice or assignment of books. Each pupil should learn to keep a record of the books or parts of books he has read, should present in class any questions of doubt or difficulty, and should give to the class something gained from the reading, an account of some person, some incident, or the answer to some question. (For lists of books see under Reading and Literature.)

Graphic Representation.—Study of maps and pictures and construction of same by the pupils. Example of the latter. The pupil having studied about the Missouri Compromise should fill out an outline map showing free territory, slave territory, and unorganized territory. Upon a series of outline maps the pupils may construct maps showing the growth of the Nation.

Upon a single map, with some statistical material from census reports, pupils might show, by means of different colors or by some scheme of lettering, the rise of the cities in the United States, as the cities over 25,000 population in 1790, in 1830, in 1860, and in 1890. The opportunities for valuable work in this line are innumerable.

Blank outline maps can be made easily as follows: Lay a sheet of mimeograph stencil-paper upside down over a "Heath Outline Map" and lightly trace the map on the stencil with ink. Do not scratch the stencil. Next place the stencil on the plate and trace the ink-lines with the stylus, being careful not to scratch too deep, as the stencil may split while printing. With care two hundred blank outline maps may be made from a single stencil. Important maps should be placed on the blackboard in colored crayons, if a MacCoun's chart is not in the building. In having pupils reproduce these maps do not insist on too great accuracy. (See suggestions concerning map drawing under Geography.)

Recitation from Text-Book.—In new work the chief aim should be to secure a full comprehension of the subject-matter. To this end it is the duty of the teacher to cross-question, to criticise and to introduce illustrations and explanations. After this has been done, recitations should follow either of the following forms, according to the nature of the work at hand: A rapid fire of sharp,

pointed questions, every pupil being on the alert to answer, and the premium being upon quickness and accuracy of thought; or the topical recitation, the pupil being given a topic, doubtless stated in the assignment of the lesson, and being allowed a liberal time for handling it, the premium now being upon fluency, logical arrangement of thought and completeness of treatment.

Certain parts of history are more important than other parts. The points of greatest value in Grammar Grade work are the lines of development of the Nation, the causes of great events, and the social and industrial life of the people. The least important parts of History are the details of wars, battles, and events of minor importance. To memorize all the details of a campaign is to spend a large amount of time on something of small educational value. A study of the topics for Sixth, Seventh, and Eighth Grades will indicate their relative importance. The details of a campaign and the issues of the political parties are points which may be greatly abbreviated. This can be illustrated from a study of the Civil War. The causes of the conflict should be brought out carefully. This is done in topics 41, 42, and 43. Topic 44, the war itself, can be studied best as a reading lesson. The story of the war, by campaigns, should be read section by section by the pupils and the movements traced on an outline map, with a rapid review at the close. This will give a clearer idea than in any other way, and the war may be covered in six to eight days.

Something of the same plan may be followed in studying about the political parties: It is not necessary to memorize the details of each election. As the work is gone over as a class study make a list of the presidents in order in a space reserved on the blackboard and put down name, years, and party electing. The names of the presidents and their years of office should be memorized. Leave the list on the blackboard during the year and refer to it from time to time in connection with other topics.

DISCUSSION.—A spontaneous outgrowth from the recitation, and valuable in the development of clearness of view and in the training of judgment. More extended discussion should deal with questions previously stated before the class so as to allow time for prepara-

tion. Again, the number of opportunities is almost without limit. Examples for illustration: Was there any wrong in the purchase of negro slaves by Virginia planters in 1619? What made the English superior in the struggle with the French for the possession of the Ohio Valley? Ought President Adams to have been re-elected in 1800?

CORRELATION WITH GEOGRAPHY.—Throughout the work attention should be given to a close correlation of history and geography. In the period of the settlements use the maps continually. Do not assume that pupils studying about the struggle with slavery have clear geographical ideas when they speak of the Missouri Compromise or the Kansas-Nebraska Act.

INVESTIGATION.—As adapted to the Grammar School, this work should be employed for the purpose of training pupils in the use of material, in carefulness in weighing evidence, and giving some soberness of judgment and some elementary practice in the critical methods of history. All pupils will not be able to do the same work here. Questions will have to be suited to the ability of the pupils, but all will profit by this work. Great care must be used that this work is not made too difficult, and it should not be tried before the Sixth Grade.

A few questions from material easily accessible are presented for illustration; but all of this work is necessarily dependent upon the possession of the material, and may be considered optional with the teacher. (a) What did Columbus regard as the value of his discoveries? References: *The Discovery of America, from the Life of Columbus, by his son, Ferdinand Columbus, Old South Leaflets, General Series, No. 29*; *Columbus's letter to Gabriel Sanchez, Old South Leaflets, General Series, No. 33*; *Life of Columbus, and histories.* (b) How did the City of Mexico appear to the Spaniards? Reference: *Cortes's Account of the City of Mexico, from his second letter to the Emperor Charles V, Old South Leaflets, General Series, No. 35.* (c) Find distinct instances of the "injuries and usurpations" charged against the King of Great Britain in the Declaration of Independence. Reference: *Histories*

of the United States for the period. (d) Why did the Pilgrims leave Holland? Reference: Bradford's History of the Plymouth Plantation, American History Leaflets, No. 29. For further material and suggestions see Sheldon-Barnes's *Studies in American History*, Mace's *Working Manual of American History*, pages 121-297, Mace's *Method in History*, 21-64, and Fiske's *History of the United States*. Fiske is very good.

4. TOPICAL STUDY.

The systematic study of the History of the United States is to occupy the Sixth, the Seventh, and the Eighth Grades, as indicated in the outline of topics. The topics for each year should be elaborated so as to furnish *a definite subject for each lesson*. This may be done by the teachers for themselves, or use may be made of such books as Barnes, Davidson, Fiske, Gordy and Twitchell, and Mace (see References). Topics 32 and 52 of this course show how a topic should be worked over by teachers. After the points have been worked over and the subjects outlined in such a manner, teachers will have little difficulty in making the topics "live before the pupils." The basis of success in topical teaching is careful preparation. Every lesson should be upon a definite subject, not a mere assignment by pages. Pupils should be given the proper reference to the text-book and suitable collateral references to other books which are available in the schoolroom.

5. SCHOOL LIBRARY OF U. S. HISTORY.

There should be a few books on U. S. History in each school. The number of books needed is not large, and many can be borrowed for the time needed from the Public Library. It is an important element in one's education to be taught how to use books to find and to verify information, and this can be taught better in connection

with History-teaching than any other subject of study in the elementary school. The following are suggested. The ones indicated by an asterisk should be bought first.

Caldwell, *Source Extracts on Am. Hist.* (J. H. Miller, Lincoln, Nebr.)

*Channing, *Short History of the U. S.* (Macmillan.)

*Dole's *The American Citizen.* (Heath.)

*Earle's *Home Life in Colonial Days.* (Macmillan.)

*Earle's *Child Life in Colonial Days.*

*Fiske, *History of the United States.* (Houghton, Mifflin.)

Fiske, *American Revolution* (2 Vols.).

Fiske, *Critical Period of Am. History.*

Fiske, *Old Virginia and her Neighbors* (2 Vols.).

*Fiske, *War for Independence.*

Hart, *Formation of the Union.* (Longmans, Green.)

*Hart, *Source Book in Am. History.* (Macmillan.)

Hart and Channing. *American History Leaflets.* (Lovell, N. Y.)

Lossing, *Field Book of the Am. Revolution.* (Harpers.)

*McMaster, *School History of the U. S.* (Am. Bk. Co.)

McMaster, *History of the People of the U. S.* 5 Vols. (Appleton.)

Montgomery, *Student's Am. History.* (Ginn.)

Old South Leaflets. (Boston.)

Parkman Works (11 Vols.) (Little, Brown), Any of, but particularly:—*Jesuits of North America; Pioneers of France; Montcalm and Wolfe; The Conspiracy of Pontiac.*

*Sheldon-Barnes, *American History.* (Heath.)

Thwaites, *The Colonies.* (Longmans, Green.)

Wilson, *Division and Reunion.*

Any of the *American Statesmen* or *American Commonwealths Series.* (Houghton, Mifflin.)

Teachers should own a few of these books, a few pupils may possess copies which they would be willing to lend to the class-room

reference library, all can be obtained at the Free Public Library, and the Board of Education will add a few from time to time as finances will permit.

6. OUTLINE OF INSTRUCTION.

FIRST YEAR.

The central thought of the work during this year should be the study of child-life among other people, that the social ideas which the child possesses when he comes to school may be utilized, and in beginning the observance of a few special holidays. In the study of how children lived amid primitive people the teacher should aim to cultivate the imagination of the pupils, and thus lay a basis for future work, that pupils may be able to form clear-cut mental pictures of scenes and events of the past. In this work do not attempt much at a time and be very concrete. (See directions above, and consult Gordy and Twitchell, Mace, Scott, and Wilson.) Remember that children of this grade are particularly interested in children and in strong lines of action. The work demands a clear presentation of persons, places, and cause and effect, but calls for little attention to the time element.

Material for the work must be supplied through stories told by the teacher, or, occasionally, read from appropriate books. The *Childhood of Hiawatha* (begin at Chap. IV, line 64), the stories of Kablu, the Aryan Boy, and Darius, the Persian Boy, (Jane Andrews, *Ten Boys on the Road from Long-Ago to Now*), and the Story of the Brown Baby (Jane Andrews, *Seven Little Sisters*) will furnish a basis for the work. Use the material as a basis for oral language-work and for reading-lessons on the blackboard and on cards.

Bring national ideas to notice by the observance, in some simple manner, of such national days as Thanksgiving, Washington's Birthday, and Decoration Day.

SECOND GRADE.

Continue the work as indicated under First Grade. Use more of the life of Hiawatha, particularly his fasting and wrestling with Mondemin. Lead the pupils to see the high ideal Hiawatha had, the meaning of the legend, and the good he brought his people. Relate simple stories of Indian life. Use the story of Pocahontas. Have reading-lessons on the blackboard and on cards based on this material. (See directions above, and consult Gordy and Twitchell, Mace, Scott, and Wilson.)

Brooks's *Stories of Red Children*, the first half of Holbrook's *Hiawatha Primer*, or Smith's *Story of Hiawatha* should be read as supplemental reading in connection with this work.

In the Second Grade begin using the story of Robinson Crusoe. First develop the story, as indicated in the suggestions given above. Do this in connection with oral language-work. For a time ten minutes a day may be given to a careful development of the story, the teacher directing the class by questions. Teachers should follow the suggestions contained in the Teachers' Edition of Mrs. McMurry's edition of *Robinson Crusoe*, or in Chas. McMurry's *Method in Literature and History*, (pp. 29-41). Following the development of the story, teachers may read extracts from a complete edition of De Foe's book. As soon as pupils are able to read McMurry's *Robinson Crusoe for Boys and Girls*, the book should be put in their hands as a supplemental reader. This may be in the latter half of the Second Year, or may not be until the beginning of the Third Year, depending on the advancement of the pupils.

Continue the observance, in some simple manner, of such national days as Thanksgiving, Christmas, Washington's Birthday, Longfellow's Birthday, and Decoration Day. Wilson's *History Reader*, II, 177-217, contains easy reading-lessons on Lincoln and Washington. These are suited to card or blackboard reproduction.

THIRD GRADE.

The central thought for this year should be pioneer life in New England and California, this to be continued in the next grade, and

a few stories of the boyhood of great men. The work connects with that of the previous grades by continuing the study of primitive life among the Indians of New England and California, and begins the study of early local history, and more definite work on the biographies of a few famous Americans.

That part of the year's work which deals with the biographies of a few early Americans and the early life in New England and Virginia should be done very largely as a part of the work in supplemental reading. Teachers may relate simple stories of the coming of the Pilgrims to America; the settlement of Plymouth; Samoset, and Massasoit. Jane Andrews' *Story of Ezekiel Fuller, the Puritan Boy* (*Ten Boys*, pp. 191-206) will furnish some material. Do not anticipate the material to be found in Pratt's *Story of Colonial Children*, which is a supplemental reader for Fourth Grade. Such stories, if worked up by teachers, will make good material for reading cards. These may be used in class or given out for Home Reading. Wilson's *History Reader*, I, pp. 29-139, contains material which teachers will find suitable. Smith's *Four True Stories of Life and Adventure* contains easy stories of Columbus, John Smith, Miles Standish, and Franklin, and *Stories of Great Men* (Ed. Pub. Co.) contains equally easy stories of Columbus, Washington, Penn, Putnam, and Franklin. Any one of these books will furnish good material for the work. Eggleston's *Stories of Great Americans for Little Americans* contains good stories and is well suited to the work of this grade.

That part of the year's work which deals with Local History should be done as a part of the work in Geography. The Geography of this grade is a study of home surroundings, and as a part of this study there should be some easy work on the history of the geographical features studied. Such topics as the following, selected from Mrs. O'Neal's list of suggestions, should be considered in connection with the study of the San Francisco peninsula:—

1. Indians who once lived here; their former modes of life.
2. The Spaniards; where from, and reasons for coming to this peninsula.
3. The Mission Dolores; location and description of church and cemetery.

4. Conditions (geographic, climatic) which made San Francisco a favorable place for settlement.

5. Houses of Spaniards; of what constructed, how built, and how covered.

6. Occupation of the people who came here first. Small settlements.

7. The Presidio; location and present use; meaning of word; how used by Spaniards.

8. The American settlement at Yerba Buena; location and occupation of the people.

9. Telegraph Hill, Russian Hill, Rincon Hill, and Bernal Heights; manner in which names were obtained, and use in early days.

10. Portsmouth Square; a few of the historical scenes of which it was the center.

11. Meiggs's Wharf and Long Wharf; their importance in early days.

12. Mission Creek and Potrero; situation and use.

13. Location of first house built by an American (Captain Richardson), location of American settlement.

14. Population in 1842 (50) and in 1860 (50,000); cause of the rapid increase. The effect of the discovery of gold on the development of the city.

15. Streets named for pioneers; streets which have been built on land filled in, and where the bay formerly came; change in the water front.

16. Old houses now standing that came around The Horn.

17. Opening of Market Street; steam paddy; leveling of the sandhills; development of the Western Addition; horse-cars, cable-cars, and electric-cars.

Correlate this work with the study of the Geography of the region.

Continue the observance of such national days as indicated under Second Grade, adding Admission Day and any others that may seem especially desirable.

FOURTH GRADE.

In this grade the emphasis should be shifted still more from the stories of early life and the boyhood of a few great men to the lives and deeds of a number of great Americans, especially those concerned with the early settlement and pioneering. This line of work is best suited to children's interests at this period. All of it correlates closely with the Literature and the Geography of the grade. Pratt's *Stories of Colonial Children* is especially well suited to the first half of the Fourth Year. Pratt's *Story of Columbus* is a little more difficult reading than the *Stories of Colonial Children*, but should be capable of being read the second half of the year. Snedden's *Docas, the Indian Boy of Santa Clara*, a story of early life at the Mission, is easy reading for the first half of the Fourth Year. *Stories of American Pioneers* (Ed. Pub. Co.), containing stories of Boone, Lewis and Clark, Fremont and Carson, is suitable to either half of the Fourth Year.

The Fourth Grade is the best place in the course to introduce the Grecian myths. While this work may be begun in the Third Grade, it is best to begin the work in the Fourth Grade as a phase of supplemental reading. Pratt's *Myths of Old Greece*, II, and Baldwin's *Old Greek Stories* are suitable for reading in this grade.

Not more than one of the books of Grecian myths should be read. Of the six books mentioned above, one should be read as a supplemental reader each term, the teacher making the selection. If they wish, teachers may read to pupils from any of the foregoing books which are not used as supplemental readers.

In reading these stories make opportunities for the exercise of moral judgments on the part of the pupils. Lead them to form an estimate of the moral value of the actions of heroes or historic leaders and to place their approval or condemnation on them.

Extend the work in Local History in connection with the study of the Geography of the State. Teachers to read or relate the stories and the pupils following on the map. Refer to Wagner's *Pacific History Stories*, Hood's *Tales of Discovery on the Pacific Coast*, the *State Series History*, and Hittell's *Brief History of California*

for material for the work. The following topics should receive attention:—

1. Voyages of Balboa, Magellan, and Drake.
2. Cabrillo's discoveries along the Pacific Coast.
3. The discovery of San Francisco Bay.
4. The Indians of California; their former modes of life.
5. The founding of the Missions. (Indicate location on an outline, sandboard, or wall map, and on the map of the State Elementary Geography, page 28. Use pictures of a few Missions.
6. The Mission Indians; manner of living; treatment by the Spanish.
7. Towns founded by the Spanish about the Missions; mode of life among the early Spanish families.
8. How California became a part of the United States; capture of Monterey and San Francisco.
9. Occupation of Americans who came before 1848; trade in hides, tallow, etc.
10. Discovery of gold; mining excitement; ships to San Francisco and rush to the mines; rapid growth of the city; mixed population; lawlessness; vigilance committees.
11. The Donner party as typical of crossing the plains.
12. Other ways of coming to California in the early days.
13. The opening of the first transcontinental railway.
14. The change from a mining to an agricultural State.

CIVIL GOVERNMENT.—In connection with the study of the Geography and the History of California bring to the attention of pupils some of the easily understood principles of government; such as,—

1. The meaning of the word "government," and the necessity for some form of it.
2. Government in the home, school, city, and State.
3. Who are citizens, what it means to vote, and the duty of voters.
4. The idea of a city and its government.

5. The idea of a State and its government.
6. The idea of the government of our country.
7. Titles and names of the chief officer in each of the three.
8. The idea of a capital city.
9. Simple ideas as to how laws are made.

Make this work quite simple and easy to understand. Correlate this and the Local History quite closely with the teaching of Geography. Consult Dole and Forman for ideas as to the work. (See References.)

Continue the observance of such special holidays as may seem desirable.

FIFTH GRADE.

In this Grade the work is to take on a larger range of facts and events. The biographical element is still prominent, but woven about the story of the hero is the story of the hero's part in American History. The event should be brought into greater prominence than before. Eggleston's *First Book in American History* to be bought and used as a supplemental reader during the second half of the year. Correlate with the geography work by looking up the localities mentioned. The book should be used as a reader more than as a history text. There should be no assignment of lessons to be learned and recited by memorizing from the text, though pupils should be able to reproduce, orally, the substance of the chapters. The work of the teacher should be to bring out and reinforce the pictures drawn so as to enrich the mind of the child.

Moore's *Pilgrims and Puritans*, Moore's *From Colony to Commonwealth*, and Eggleston's *Stories of American Life and Adventure* are all well suited to use in this or the following grade.

CIVIL GOVERNMENT.—Review the topics indicated for Fourth Grade. Do this in connection with the work in Geography. Add to the Fourth Grade topics simple ideas of:—

1. A republican form of government.
2. Further ideas as to the purpose of a Legislature and of a Congress.

3. Some of the duties of a Chief Executive.
4. How a government is supported; simple ideas as to taxation.

Consult Dole and Forman. (See References.)

SIXTH GRADE.

NOTE.—The systematic study of United States History for this and the following years is outlined by topics, selected and arranged so that the simpler work may precede the more complicated and difficult. (See paragraph on topical study in the introduction to this course.)

GENERAL SUBJECT FOR THE YEAR.—Historical Geography of the United States and the Record of Settlements by Europeans. The work will go deeper into the study of events than was done in the Fifth Grade, but will retain the biographical element more than will be done in the Seventh and Eighth Grades. (See the introduction to this course for methods of work.)

CIVIL GOVERNMENT.—Continue to teach, in connection with the study of History in this grade, simple ideas as to the nature and purpose of government.

REFERENCES.—The references here given, by numbers in parenthesis, refer to sections in the State text-book. A few other easily accessible references are indicated by pages, though the list is by no means exhaustive. For more exhaustive references consult,—Allen, *Topical Studies in American History* (Macmillan); Channing and Hart's *Guide to the Study of American History* (Ginn); and Hart's *Source Book of American History* (Macmillan).

The following abbreviations will be used in making citations:—Fiske,—Fiske's *History of the United States* (Houghton, Mifflin, \$1.00); O. S. L.,—*Old South Leaflets* (Directors of Old South Work, Boston, 5c each); Hittell,—Hittell-Faulkner's *Brief History of California*, I; McMaster,—McMaster's *School History of the U. S.*; Dole,—Dole's *The American Citizen*; Forman,—Forman's *First*

Lessons in Civics; Sh-Brns.,—*Sheldon-Barnes American History* (Heath, \$1.15). A copy of Fiske, Sheldon-Barnes, McMaster and Dole should be in each room. If the Department is not able to furnish these books teachers of History will find them so valuable that it will pay to buy them themselves. Channing's *Short History of the United States* contains the best colored maps.

MAPS.—Colored maps should be placed on the blackboard and reproduced on outline maps by pupils. There should be practice in the progressive filling-in of outline maps and their reproduction from memory. (See preceding directions.) Do not insist on too great accuracy. (See suggestions on map drawing under Geography.)

The following work has been outlined in detail with a view to assisting teachers to get materials which will enable them to present the work with some spirit. Caution must be given against making the work too technical. Teachers should note the possibilities for correlation with Geography and Literature.

FALL TERM.

A topical study of discovery and exploration. State text in the hands of the pupil.

1. The Commerce of Western Europe with the Far East in the 15th Century. (4-7); Fiske, 21-27; Hittell, 4a-4b; Sh-Brns., 9-10; O. S. L., No. 32.

2. The problem of the sea route to India as solved by da Gama. (8); Sh-Brns., 28-29.

3. Ideas as to the shape and the size of the world at the time of Columbus. Fiske, 23-27; Sh-Brns., Chap. I; O. S. L., No. 30.

4. Earlier Navigation of the Atlantic—Northmen. (23); Fiske, 19-21; Fiske, *Disc. of Am.*, I, 164-175; O. S. L., No. 31; Sh-Brns., 6-11.

5. Columbus,—his ideas, his voyages, and his work. (9-16, 24-25, 27-28); Fiske, 25-35; Fiske, *Disc. of Am.*, I, 419-445, 505-513,—II, 96, 108; O. S. L., Nos. 29, 33, 34, and 71; Sh-Brns., 19-27, 29-31.

6. The followers of Columbus (Spanish) and their achievements,—Balboa, de Leon, Magellan, de Soto. 29-31; Fiske, 40-46; O. S. L., No. 36; Sh-Brns., 31-36; Hittell, 1-5; Parkman, *Pioneers of France*, 9-17; Pratt, *De Soto, Marquette, and La Salle* (Ed. Pub. Co.).

7. French and English explorers in the New World. (32-38); Fiske, 50-52, 59-62; Hittell, 32-38; Sh-Brns., 41-45; O. S. L., No. 37.

8. Progress of knowledge of the continental outline,—Map summary of discoveries. Extension of knowledge of California Coast by Cabrillo and Vizcaino,—Hittell, 21-25, 50-56.

9. The original inhabitants of America,—(14-19); Fiske, 1-14; Fiske, *Disc. of Am.*, I, 4-52; Sh-Brns., 51-56.

10. Exploration of the interior of the continent.

(a) Mexico,—(29); Fiske, *Disc. of Am.*, II, 262-290; O. S. L. No. 35; Hittell, 5-8; Pratt, *Cortez and Montezuma* (Ed. Pub. Co.).

(b) Florida,—(29-30, 46-48).

(c) Canada and the Interior,—(33, 44-45, 174-178, 182-183); Fiske, 50-55; Parkman, *Jesuits in N. Am.*; Sh-Brns., 62-64; 87-91. O. S. L., No. 17; Pratt, *De Soto, Marquette, and La Salle*; Parkman, *Pioneers of France*.

(d) New Mexico and California,—Hittell, 9-20; Sh-Brns., 37-41.

The work of this term is capable of the closest correlation with the work in Geography. (See Geography course.)

SPRING TERM.

A topical study of the period of settlement.

11. Early attempts at colonization (43-54); Fiske, 62-64.

12. The settlements in Virginia and Maryland. (55-58, 102-120); Fiske, 67-78, 124-129; Cooke, *Virginia*, in Am. Commonwealth's Series; Sh-Brns., 57-61, 70-71, 77-79.

13. Home life and government in Virginia and Maryland. The purpose of people in coming to America, use of land, slavery, commerce, occupations, religion, home life, amusements, education, means of communication, local government, relations with the Mother Country, etc. (102-120, 134-140, 162-173); Dole, 51-67;

Earle, *Home Life in Colonial Days* and *Child Life in Colonial Days*; McMaster, 93-108; Forman, 82-88.

14. The settlements in Massachusetts (55-70); Fiske, 85-97; Fiske, *Beginnings of N. Eng.*; Sh-Brns, 65-69, 80-81.

15. The settlements in Rhode Island and Connecticut (71-79); Fiske, 98-109; Fiske, *Beginnings of N. Eng.*; Sh-Brns., 71-72.

16. Home life and government in New England contrasted with Virginia and Maryland, as to the purpose of the people in coming; different climates, use of land, commerce, religion, education, home life, amusements, occupations, means of communication, local government, relations with the Mother Country (82-101, 162-173); Earle, *Home Life in Colonial Days* and *Child Life in Colonial Days*; McMaster, *School Hist. of U. S.*, 93-108; Dole, 51-67; Forman, 75-81.

17. The settlements in the Carolinas and Georgia. (121-133); Fiske, 147-152; Sh-Brns, 94-96.

18. The settlement of the middle colonies,—New York, Pennsylvania and New Jersey. (141-150); Fiske, 129-142; Sh-Brns., 69-70, 92-94.

19. Home life and government in the Dutch colonies contrasted with New England and Virginia. (82-101, 134-140, 152-161, 162-173); Earle, *Home Life in Colonial Days* and *Child Life in Colonial Days*; McMaster, *School Hist. of U. S.* 93-108; Dole, 51-67.

20. Home life and government among the Quakers of Pennsylvania contrasted with that in the other colonies. (82-101, 134-140, 152-161, 162-173); Earle, *Home Life in Colonial Days* and *Child Life in Colonial Days*; McMaster, *School Hist. of U. S.*, 93-108.

CIVIL GOVERNMENT.—Teachers should keep in mind the subject of self-government in towns and among groups of people while teaching topics 13, 16, 19, and 20.

SEVENTH GRADE.

The subject for this year's work is the formation of the Nation and the establishment of the Government. The events can be

dealt with now without longer giving much attention to the biographical element. Read the introduction to this course, and the instructions for Sixth Grade. State Series text-book in the hands of the pupil.

FALL TERM.

A topical study of the struggle for the interior, the causes leading up to the Declaration of Independence, and the war in the North.

After 1900-1901, study the following topics:—

21. The position of England and France in 1750 as to territory held by each (map). Occupations, causes of conflict. (184-189); Sh-Brns., 101-105. Make this topic a brief review of the period of colonization.

22. The natural gateways into each other's territory, and hence the natural chain of defenses. Using a map and questions, reason out the five objective points in the coming struggle. (190-193); Fiske, 168-170.

23. The struggle for the interior and its result. Use maps in tracing the results, (194-210; Fiske, 168-176; Parkman, *Montcalm and Wolfe*; Sh-Brns., 105-113. (See caution about teaching wars, under Recitation from Text-books.)

24. Causes of ill feeling between England and her Colonies. The successive steps between the close of the war in 1763 and Lexington and Concord in 1775, (211-252); Fiske, 181-204; Fiske, *The Am. Rev.*, I; Cooke, *Virginia* (Am. Commonwealths Series); Fiske, *War for Independence*, 4-78; Sh-Brns., 125-152.

25. The siege and evacuation of Boston, (253-264); Fiske, 205-211; O. S. L., No. 47; Fiske, *War for Independence*, 78-94; Sh-Brns., 152-157.

26. Independence. What the Declaration declared, (272-277); Fiske, 209-211; Fiske, *War for Independence*, 97-103; Sh-Brns., 158-166.

27. The struggle for possession of the Center.

(a) Washington,—Long Island, retreat, Trenton, Howe's attack on Philadelphia, Philadelphia abandoned, Monmouth. (279-291, 295-298); Fiske, 216-223; Sh-Brns., 166-168.

(See caution about teaching battles under Recitation from Text-Books.)

(b) Burgoyne,—What he attempted, his allies, main battles, surrender, result, (303-308); Fiske, 223-231; Sh-Brns., 170-173; Fiske, *The Am. Revolution*, I.

28. The gloomiest period of the war.

(a) State of the army in 1777; winter at Valley Forge, (279, 288, 293-294); Sh-Brns., 169; Fiske, *The Am. Revolution*, II, 28-29, 239-243.

(b) Finances: Continental money; Robt. Morris. (342-344); Fiske, 235-237.

(c) Arnold's treason (319-320, 335-336); Fiske, 237-238; Fiske, *War for Independence*, 167-171; Sh-Brns., 181-183; Fiske, *Am. Revolution*, II, 215-239.

29. Events which encouraged the Americans.

(a) France decides to aid America. Franklin in France, (308, 310, 318); Fiske, 230-231; Sh-Brns., 173-176.

(b) The victories of Paul Jones, (316-318); Fiske, *Am. Revolution*, II, 121-130.

During 1900-1901 only, Seventh Grade classes will study the following topics the Fall term: Nos. 1 to 18 inclusive, omitting 4 and 8 as having been covered in substance in 1899-1900, and shortening the other topics whatever amount may be necessary.

CIVIL GOVERNMENT.—In teaching topics 24 and 26, teachers should keep in mind questions relating to self-government in a Republic.

SPRING TERM.

A topical study of the conclusion of the Revolutionary War, the formation of the National Government, and the life of the Nation up to 1815.

After 1900-1901 study the following topics:—

30. The war in the South.

(a) In the Carolinas.—Causes of the invasion, points captured, Camden, Greene's retreat and results of his battles. (321-

334); Fiske, 238-240; Fiske, *War for Independence*, 163-166, 171-178; Fiske, *American Revolution*, II, 244-268; Sh-Brns., 183-184. (See cautions about teaching battles under Reciting from Text-Books.)

(b) The siege of Yorktown (337-341, 345-346); Fiske, 240-241; Fiske, *War for Independence*, 178-181; Fiske, *The Am. Revolution*, II, 273-286; Sh-Brns., 185-189.

31. The critical period (1783-1789). Weakness of the Articles of Confederation, danger of separation, self-government of the Colonies through the Colonial Legislatures and Governors, transition from Colonies to States, the Federal Convention, the Constitution adopted, (347-361, 162, 223, 234, review of Chap. XV); Fiske, 246-250; Fiske, *Critical Period in Am. History*; Fiske, *War for Independence*, 182-193; Sh.-Brns., 196-199, 203-207; McMaster, 197-204; O. S. L. No. 12.

32. The Constitution of the United States. (415-425); Dole, 67-72, 77-102, 301-316; Forman, 138-178. The Constitution should be read in class and its chief provisions explained by the teacher. The questions on pp. 187-188 should then be taken up as a class study, and pupils should be able to get the answers from the outline given below or from the Constitution, though often the assistance of the teacher will be necessary. This work will need much interpretation, and should not be made too difficult. The important thing is that the pupils *understand* the provisions of the Constitution, not that they *memorize* them.

In studying this topic the following outline should be developed on the blackboard, copied by the pupils, and gradually fixed in mind:

THE NATIONAL GOVERNMENT.

I. *Congress*. (Legislative Department.)

1 Meetings:—

- (a) First Monday of every December.
- (b) Extra sessions.

2 Consists of:—

- (a) Senate,—Two Senators from each State; elected for six years by the State Legislatures.

- (b) House of Representatives,—One representative for every 154,000 people; elected for two years by the people.

3 Chief Powers:—

- (a) To make laws.
- (b) To coin money.
- (c) To lay and collect taxes.
- (d) To declare war.
- (e) To provide for and maintain an army and a navy.
- (f) To fix the standards of weights and measures.
- (g) To grant patents and copy-rights.

II. *Executive Department.*

- 1 Chief officer,—President, elected by electors chosen by the people, each State being allowed as many electors as it has Congressmen.
- 2 President's Cabinet.
- 3 Chief Duties of President.
 - (a) To sign or veto bills.
 - (b) To send an annual message to Congress.
 - (c) To make treaties, with consent of the Senate.

III. *Judicial Department.*

- 1 U. S. Supreme Court, consisting of the Chief Justice and eight Associate Justices, appointed by the President, with consent of the Senate, for life or during good behavior.

33. The new government inaugurated, the problems it was called upon to meet, how to pay the Revolutionary debts and the expenses, taxes, courts, territories, and new states, prosperity of the country. (362-379, 395-398, 408); Fiske, 253-264; Sh-Brns., 211-215; O. S. L. No. 74.

34. City, country, and social life, and means of communication during the first years of the Republic. Fiske, 253-258; McMasters's *History of the People of the U. S.*, I, 1-102, 538-582 (This reference is excellent for teachers' use); McMaster, 175-196 (This reference is excellent for pupils' use); Sh-Brns., 220-229, 245-250.

35. The period of weakness. Lack of strength at home (372,

382-383), favorable industrial and commercial conditions throughout the country (376, 392-395, 397-398), growth of the democratic spirit (375, 400, 411, 413), European wars and their effect on America (386-387, 390, 391, 402-407, 421-425), war with Tripoli (419-420). Fiske, 266-272, 275-278; McMaster 206-218.

36. The war for commercial independence, or the second war with Great Britain.

(a) Causes leading up to it (421-426, 431-436). Fiske, 277-281; McMaster, 224-231; Sh.-Brns., 229-232; McMaster, *Hist. of the People of the U. S.*, II. and III. (See index.)

(b) The campaigns and naval victories (439-452). Fiske, 284-289; McMaster, 233-239; Sh.-Brns., 233-238. (See cautions about teaching battles, under *Recitation from Text-Books.*)

(c) The results of the war. (See foregoing references.)

During 1900-1901 only, Seventh Grade classes will study the following topics the Spring Term:—Nos. 21 to 31 inclusive, shortening the topics whatever amount may be necessary to do the work.

CIVIL GOVERNMENT.—Teachers of this grade should keep questions relating to National and State government in mind while teaching topics 31, 32, 33, and 34.

EIGHTH GRADE.

The general subject for this year's work is the development of the Nation. The *event* and the *causes* leading up to it are the points to receive emphasis, the biographical element being wholly subordinate. Read the introduction to this course, and the instructions for Sixth Grade.

FALL TERM.

A topical study of the firm establishment and the development of the Nation up to about 1850.

After 1901-1902 study the following topics:—

37. Growth of political parties to 1825. Leaders, ideas, theories, methods, and public work accomplished, (360, 388-389, 396, 404-407, 409-410, 424-426, 438, 451, 453-454, 466). Make this

topic involve a review of the progress of the Government, from the inauguration of Washington, particularly topics 33 and 35, subordinating the mere party side to the historical development.

38. Territorial development of the Nation. The original territory; the Louisiana purchase (417); Lewis and Clark expedition,—the Oregon country (418, 518, 528, 677); purchase of Florida (456); annexation of Texas (517, 522, 526-538); California and New Mexico (767-774, 567); Alaska (673); map work. Sh-Brns., 215-219, 256-271; McMaster, 218-221, 320-334.

39. Internal development of the Nation.

I. Means of travel, transportation, and communication.

- (a) Courier, stage-coach, national roads, railways, (397, 462, 494, 544, 681, 794).
- (b) Canals, river steamboat, ocean steamer, (463, 414-416, 493).
- (c) Omnibus, horse-car, cable-car, electric car.
- (d) Telegraph, telephone (524).
- (e) Postal service.

References on (a)-(e). McMaster, 187-191, 251-253, 279-290, 368-376, 433-436; McMaster, *History of the People of the U. S.*, III, 459-540; Sh.-Brns., 220-222, 250-253; Fiske, 314-317. (Also see Manual Training Course, Eighth Grade.)

40. Internal development of the Nation.

II. Manufactures, commerce and the national policy.

- (a) Manufactures and commerce, (463, 551, 566, 689).
- (b) Tariff (364-366, 471-476, 481, 484-486).
- (c) Monroe doctrine (464.) Fiske, 298-300, 306-312; McMaster, 246-250, 368-376; Sh.-Brns., 245-250.

41. Internal development of the Nation.

III. Spread of population, new states, and the rise of cities.

- (a) States and territories in 1830. Development of the country since 1789. (Map study).

- (b) The spread of population, the rising West, and the growth of cities to 1850, (188-189, 381, 392-393, 490, 498); Fiske, 314-317, 396; McMaster, 245, 248, 250, 266-273, 290-291, 365-369, 454-458; Sh.-Brns., 278-280, 308-313, 386-388, 395-397.

42. Slavery becomes a national issue. Early ideas regarding slavery (135, 164, 350, 379), increase of slaves in the South, effect of the invention of the cotton gin (398), spread of slavery westward (457-459), the Missouri Compromise (459-460) areas of freedom and slavery in, 1825 and 1845 (outline maps), the abolition movement (461, 492, 508-509, 523); Fiske, 300-303, 322-323; Sh.-Brns., 241-244; McMaster, 301-303, 312-315.

43. Political parties from 1825 to 1850. The political questions of the period and the position of parties and leaders with respect to them. The rise of the Whig party. (475-478, 480-483, 487-489, 499-514, 519-523). (Treat this topic briefly, and as indicated in the caution under *Recitation from Text-books.*)

During 1900-1901 do same work as outlined for Seventh Grade, topics 21 to 29 inclusive.

During 1901-1902 review topic 31 and begin at topic 33 and take to topic 43 inclusive, shortening the topics whatever amount may be necessary to do the work.

SPRING TERM.

A topical study of the struggle over slavery, the result of the struggle, and the recent development of the Nation.

After 1900-1901 study the following topics:—

44. The final struggle with slavery, admission of California, the compromise of 1850, the Kansas-Nebraska Act (map), the struggle in Kansas, the rise of the Republican party, Dred Scott decision, John Brown's raid, the issue in 1860 and the result, (775-776, 544-550, 553-554, 557-564, 568, 573-587) ; Fiske, 337-352; McMaster, 334-343, 346-363; Sh.-Brns., 291-308, 314-321.

45. Secession and Civil War. The States which seceded (map),

the situation, opening events. (583-593). The campaigns of the war, (596-653, 658-659; read these sections using a map, and observe the cautions given under *Recitation from Text-books*). Sh-Brns., 308-370, Fiske, 352-384; McMaster, 378-424.

46. The problem of reconstructing the Union. (660-672, 683-684); Fiske, 393-396; McMaster, 427-431; Sh-Brns., 376-380.

47. Financial problems of the Civil War and their later developments. Cost of the war, and war taxes (654-656); money and the national debt; wealth; duties of wealth. (698-700); Dole, *American Citizen* (in the hands of the teacher), 169-190, 199-212; Wagner.

48. Development of the country since 1860. Rapid growth of the West and the South. New states, boom towns, new railways, increase in population, Centennial, World's Fair. McMaster, 433-436, 454-458, Wagner's *Supplement*.

49. Political parties and events since 1865. What parties are for; choice of a party. (Treat this topic briefly, and as indicated in the caution under *Recitation from Text-books*.) (674, 685, 692, 693, 695, 704-708, 719-721); Wagner. Dole, 123-132; Forman, 179-184.

50. The United States and the colonies of Spain. Causes leading up to the Spanish War, the result of the war, and the problems arising out of it. Annexation of Hawaii (Wagner); Dole, 304-316.

51. Civil Service Reform; duties of a citizen. (715); Dole, 108-151.

52. The Citizen and the Government. Purpose, various forms, local government, the States and legislative government, the people acting in Legislatures and Congress, State and Federal Taxation, how Legislators and Congressmen are chosen. Dole, 39-71; Forman, 61-69, 108-137.

In teaching this topic, give a brief outline of State Government, pointing out the similarity to National Government. Place the following outline on the blackboard, explain its parts, and have it copied and learned:—

STATE GOVERNMENT.

- 1 Meetings:—
 - (a) Biennially.
 - (b) Extra Sessions.
- 2 Consists of
 - (a) Senate.
 - (b) Assembly.

II. *Executive Department.*

- 1 Chief officer—Governor elected for 4 years. His chief duties are
 - (a) To execute the laws.
 - (b) To sign or veto bills.
 - (c) To act as Commander-in-chief of the State Militia.
 - (d) To grant pardons.

III. *Judicial Department.*

- 1 Vested in:—
 - (a) State Supreme Court.
 - (b) Superior or County Courts.

53. Cities and their government. Branches of the city government in San Francisco. Courts and police, trial by Judge and by Jury, treasury and taxes, the school system. Dole, 72-76, 83-107; Forman, 93-102; City Charter.

54. Crime, poverty and public morals. Dole, 263-294.

55. Industrial development; labor and capital. (725); McMaster, 459-461; Dole, 213-254.

During 1900-1901 do the same work as outlined for Seventh Grade, topics 30 to 36, inclusive.

Classes promoted in June, 1901, will have had American History only up to the close of the War of 1812 (topic 36), and should complete the work (topics 37-54) in the High School during years 1901-1902.

Classes promoted in January, 1901, will have had American History only up to the beginning of the struggle with slavery, topic 43, and should complete topics 44-55 in the High Schools (Jan. to June, 1901).

7. REFERENCES.

The following books and articles on the teaching of History are easily accessible and will be found valuable by teachers of the subject in elementary schools:—

Allen, John G. *Topical Studies in Am. History* (Macmillan).

Barnes, Mary Sheldon, *Studies in Historical Method*. Good on elementary school work (Heath).

Blair, Frank. The Social Function of History, Illustrated; in *Fourth Year-Book of the National Herbart Society* (Univ. Chic. Press, 1898).

Brumbaugh, M. G. Method in teaching the Social Function of History. *Fourth Year-Book*, as above.

Channing, E. Relation of Geography to History. *Proceedings N. E. A., 1895*, pp. 192-6.

Davidson, H. A. *Reference History of the U. S.* (Ginn).

Forman, S. E. *First Lessons in Civics* (Am. Book Co.). A good supplement to Dole. Very good for elementary work.

Gordy and Twitchell. *Pathfinder in American History* (Lee & Shepard).

Hinsdale, B. A. *How to Study and Teach History* (D. Appleton).

Mace, W. M. *Working Manual of Am. History* (C. W. Bardeen, Syracuse, N. Y.). A very good book for elementary school work.

Mace, W. M. *Method in History* (Ginn). Probably the best treatise published on method in elementary school work.

McMaster, J. B. The Social Function of U. S. History, in *Fourth Year-Book of the National Herbart Society* (Univ. Chic. Press, 1898).

McMurry, Chas. *Special Method in Literature and History* (Pub. School Pub. Co.). A good book.

Scott—Buck. *Organic Education*. Good suggestions for primary work.

Sheldon—Barnes. *Teachers' Manual to Studies in Am. History* (Heath).

Sloane, Wm. M. How to bring out the ethical value of history, *School Rev.*, Vol. VI, pp. 724-745. (Dec., 1898.)

Wilson, L. L. W. *Teachers' Manual for U. S. History in Elementary Schools* (Macmillan). Good suggestions for first and second grade work.

III. GEOGRAPHY.

1. INTRODUCTION.

Political Geography is the part most commonly seized upon by teachers of the subject as a basis for study. It appears to be the easiest part to teach, and all that seems necessary is to have the pupils memorize the facts. But Political Geography, however easy it may be to the adult mind, is purely artificial, and is not the part which appeals most strongly to children, and to work at the memorizing of a large mass of facts, without giving pupils any basis for interpreting them, is to create a distaste for, rather than an interest in, the subject. While there must be a certain amount of memorizing in Geography as in Spelling, some good test, such as whether we should care if we were to forget them, should be applied to facts to see if they are really worth remembering. Teachers must steer a middle course between that sterility which results from a study only of political divisions and the memorizing of such worthless facts as the names of all the tributaries of the Amazon or all the capes and bays on the coast of eastern North America, and that utter disregard, on the other hand, of such facts as the location, direction of flow, drainage basin, and comparative size of so important a river as the Amazon, or the location of Cape Cod or Chesapeake Bay. Many of the facts of Geography are best studied from the open map, and, if needed, can be looked up at any time. In the following course such facts in Political Geography as it is important to memorize are indicated.

Political Geography is an outgrowth of physical conditions,—of relief, climate, drainage, ease of communication, etc., and in the teaching of the subject these physical conditions should be brought out prominently quite early. Have the pupils come to see the *natural divisions* of the continent before the *political divisions*, and

then teach the political divisions as arbitrary dividing-lines, and the industries and commerce as a necessary result of physical conditions. Keep prominently before the pupils the reasons for conditions.

EARLY CONCRETE WORK.—Geography is a phase of Nature Study, and clear geographical concepts can be obtained only by concrete work. This concrete work should take the form of the observation of surroundings, as indicated under First, Second, and particularly Third Grade. The common home and outdoor experiences of children should be utilized in the formation of geographic conceptions, and these should be extended and made general. The work in succeeding grades should apply the conceptions gained to the recognition and the interpretation of such geographic elements as are met with in the study of the World. The work of the first two grades demands no formal study of Geography, in the commonly accepted school meaning of the term, but instead a correlation of the work indicated with work in other subjects,—particularly oral language.

Sight is the most important avenue for the fixing of a concept, hence travel is the best way to learn Geography. But children cannot travel; so the teacher must use the best substitutes for travel. These are:

(a) Intelligent observation of the geographic features to be seen near the home or the schoolhouse.

(b) Study of sand reliefs of geographic features, noting their similarity to the home surroundings.

(c) Training in the recognition of these features from a relief when represented on a large scale.

(d) Training in the recognition of these features when represented by pictures.

(e) Training in the recognition of the identity of reliefs, pictures, and maps.

(f) Training pupils to read easily a picture or a map.

(g) The records of what others have seen (books of travel).

MAPS.—Throughout the course outline and progressive detail maps are to be made, as indicated under the grade outlines. These should be rapid, sketchy ones. No scale should be required, but a due regard should be paid to proportion. No “exhibition maps” are to be required in any grade. The finished product is worth little compared with the training derived from the drawing. Remember that the maps are for teaching, not for reference, and that fine detail map-drawing is the work of experienced adults, not of children.

For some purposes outline maps can be used to good advantage. A simple method of making such maps is described in the Introduction to the History Course. They may also be made with a tracing-wheel, or any other device for duplicating. Outline maps are particularly useful in giving rapid reviews, the pupils filling in from memory.

TEXT-BOOKS.—The course in Geography is necessarily based on the text-books in use. However, teachers should be independent of the text, and this requires greater geographical and physiographical knowledge than is contained in the State text-books. The great improvement needed in Geography teaching in schools everywhere is not so much an improvement in method as a doubling of the geographic knowledge which teachers possess. Teachers of the subject should, at least, be familiar with what is contained in such books as the Frye or the Tarr-McMurry geographies, and Tarr's *First Book in Physical Geography*. The work should be made vivid and interesting by the fullness of knowledge which the teacher possesses.

While the work is necessarily based on pages of the text-book, the teacher should keep the topic instead of the page prominently before both herself and the class. Map questions should be studied first from the open book. In using the Elementary Geography the book should be used largely as a reader, the duty of the teacher being to question, criticise, and introduce illustrations, explanations, experiments, and supplemental matter to bring out the meaning of the text and the geographical conceptions. The text of the Advanced Geography may be studied privately by the pupils, but the teacher should supplement what the text contains. Bring out

prominently social, industrial and commercial conditions and their underlying causes.

The recitation work should take the form of the elaboration of a topic or section, or a rapid fire of questions, every pupil being on the alert to answer, and the premium being placed on quickness and accuracy. These rapid review questions should take such form as is indicated under Fifth, Sixth, and Seventh Grade outlines.

FIRST GRADE.

OBSERVATION LESSONS.

POSITION.—Placing of objects to the right and the left, over and under, up and down.

MEASURING.—Inch, foot, and yard. See work in Arithmetic, and correlate the work of the two subjects so far as it relates to counting and measuring. Use kindergarten or other sticks of a certain length, as one inch or three inches, or four inches, and have the pupils put them together to make a foot. Have the pupils put three one-foot rules or sticks together to make a yard. Measure the distance of one foot and one yard on the desk, floor, or blackboard, and in the air by pupils' holding their index-fingers the proper distance apart.

Mark off distances on the floor or blackboard, and measure off a foot and a yard of colored ribbon or string and keep the measure in the room for reference. Have foot and yard rules in plain sight.

DIRECTION.—Develop the idea of North, South, East, and West. Draw a large arrow on the floor, the point pointing north and the feathers to the south, and cross it by an east-and-west line. At the extremities put the letters N, S, E, and W. Call for directions of a few well-known buildings or places which are in one of the four directions from your school; such as the ocean, Oakland, Mt. Tamalpais, where the sun rises and sets.

SIMPLE TALKS AND SIMPLE INQUIRIES.—In connection with the story of Hiawatha, Kablu or the Brown Baby (History) have simple

talks about simple things on the earth. On the sandboard represent these, as indicated under History. In connection with Hiawatha set the pupils to observing and asking questions about sun, moon, and stars.

NATURE STUDY.—Simple questions and talks about day and night, days in a week, with names, months in the year. Draw an outline calendar on the blackboard, large enough to be plainly seen, and each day have the children help you fill out the blanks. Some such form as the following will be found useful:

Week day	Month.	Day.	Direction of Wind.	Cloud or Fog.		Rain.	Temp.	Moon Last Night.
				8:00	Noon.			
Thurs.	Sept.	2	W, light.	Low fog.	Clear.	None.	Warm.	Set at 10:30.

At appropriate times talk with the pupils about clouds, rain, hail, frost, fog, dew, and wind.

Suspend a prism in a sunny window and have the pupils note the colors, but do not require them to memorize the names. Do this during the rainy season, and have pupils notice the rainbow.

READING.—Many of the supplemental readers contain good Nature Study stories which can be used, but use such stories as supplemental to observations.

SONGS.—Teach the kindergarten songs based on these topics. The following are suggested:—

Rain.—“Some little drops of water,” “Beating the clover,” “Oh! the brisk and merry rain.”

Frost.—“Jack Frost is a jolly fellow.”

Stars.—“Motion song of the stars.”

SECOND GRADE.

OBSERVATION LESSONS.

(See directions for First Grade work. Review in a somewhat advanced way.)

SCHOOLROOM.—Simple talks about the schoolroom as a whole. Point out North, South, East, and West walls if the schoolhouse is properly placed; if not, point out the directions. Direction arrow on the floor as in First Grade. Direction of such places or buildings as Golden Gate Park, Presidio, Ferry Depot, Call Building, City Hall, and Mt. Tamalpais.

Have the pupils measure the length and the width of the schoolroom in feet and in yards. Compare the length with some other known length—with lengths in the yard. Have the pupils measure the heights of their desk, of the teacher's desk, of the window-sill, the door-knob. Height of the tallest and the shortest child and the teacher side by side. Compare these heights with some other known heights, as the school fence or the gate, a buggy-wheel, etc. Introduce the idea of slope, or different heights of parts of the schoolyard or street. The height of the schoolhouse compared with other building near or in sight, or of the schoolyard compared with other parts of the city which are in sight, using only such terms as higher, lower, much higher, or twice as high, half as high. Correlate this work closely with the Arithmetic. (See Grade Work in Arithmetic.)

THE CITY.—Locate the schoolroom in the school-building; teacher to make a ground-plan map on the sandboard with sticks or chalk. Similarly locate the schoolhouse in the schoolyard and in the city square. Develop the idea of a city. Using sand and the sandboard, outline a simple plan of the city, and locate, approximately (using objects), Market Street, Ferries, Presidio, Golden Gate Park, City Hall, and the schoolhouse.

LAND AND WATER.—Have the pupils bring a few samples of rock and soil from the neighborhood. Simple lessons only on these subjects. Talk about any hills the pupils are acquainted with. Model a hill in sand, and another hill much higher. Develop the idea of a mountain, and ask the pupils about any mountains which may be seen from the schoolhouse or their homes. Simple lessons, referring to the sand model of the city, on the bay, and the ocean. Simple talks about travel in the city, on the bay, and on the ocean.

ROBINSON CRUSOE.—This story (see History) offers good opportunities for work in Geography of the kind indicated for this grade. In developing the story, question the pupils about the forces of nature with which Crusoe came continually in contact, and get a clear idea of his island life. Let the pupils devise means of representing it all on the sandboard.

THIRD GRADE.

Review the geographical talks under the head of observation lessons for First and Second Grades, spending only such time on the topics as may be necessary to have them generally understood. Bring a compass into class and explain its use. Get clear ideas of the eight principal points.

In carrying out the following lines of work discretion is given teachers as to what line to take first. Probably the best results will be obtained by a close correlation of the different topics. In passing to new matter review what has been taught.

STUDY OF THE LOCALITY.—Using sand and the sandboard, model a relief map of the surrounding region so as to show San Francisco and San Pablo Bays, the peninsula as far south as San Jose, the Alameda and Contra Costa Counties shore-line back to and including the mountain range, and the Marin County peninsula. The sand relief maps should show the outlines of the two arms of the Bay, the coast line, the upper part of the Santa Clara Valley, the Golden Gate, Mt. Tamalpais, Angel Island, Alcatraz Island, Goat Island, Oakland, Alameda, Sausalito, and San Francisco. Using chalk, draw a similar map on the blackboard. Make the scale approximately the same, and try to represent the relief by shading.

Put an arrow by the board map to indicate the points of the compass. Keep both maps before the pupils until they see the relation between a relief and a map. To make the map still clearer, draw an enlarged map of the County of San Francisco by the side of the other map.

Ask the pupils to tell about trips to points within the region

which they may have taken by ferry or by train. With colored chalk indicate, on the board map, the railway and the ferry lines and the cities. Talk with the pupils about the trips—how they went, what was seen, the climate in the valley compared with that in the city, and other points of geographical interest. The map of the region should be kept on the blackboard for some time, that pupils may become quite familiar with its details.

In this connection spend some time on the history of the city, as outlined under History Course, and locate the places on the board map. Correlate the History work with the study of the Geography of the region, keeping past and present conditions side by side.

STUDY OF NATURAL FEATURES.—Along with the above work, and as a part of it, carry on a study of the principal natural features. The city and the peninsula of San Francisco offer abundant illustrations of the principal geographic types. Pupils should come to recognize these. This work should not call for memorizing, but for concrete work and an appeal to the simple outdoor knowledge of children. Technical terms should not be avoided, but they should be given only as the need arises, and should be used in the most natural manner and as a necessary means of communication between teacher and pupils. No geographical definition which is not capable of easy illustration from the region studied should be brought into the work of this grade. During this year pupils should get clear ideas, from a concrete study of the region, or the following geographic features or elements:

- (a) Hill, range of hills, mountain, mountain range.
- (b) Small valley between hills, large valley.
- (c) Bay, arm of the bay, creek, river.
- (d) Ocean, shore-line, cliff, beach, waves.
- (e) Peninsula, island, harbor, wharf.
- (f) Effect of rain on a slope; formation of gullies and canyons; formation of pebbles, sand, and soil. Illustrate this from the school-yard, gutters or streets after a rain. (Bring specimens of soil, sand,

clay, and rock into the recitation work, and have a few simple lessons about them.)

(g) Where rivers and creeks start, and where they end; rapidity of flow and cutting power on a steep slope and on a gentle slope. (Illustrate flow and cutting power as above.)

CITY AND COMMERCIAL LIFE.—In this grade also begin talks with the pupils about city life and commerce. Make this work very concrete. Direct the work largely by questions and discuss such topics as:

- (a) The difference between a city, a village, and the country.
- (b) The kinds of occupations, life, and commerce in each.
- (c) What San Francisco gets from the country, and what the country must get from San Francisco.

(d) Talk about such things as a loaf of bread, salt, a beefsteak, a pound of butter, a suit of clothes, a straw hat, furniture, nails, a street car, etc., as to whether the materials come from the city or the country and where made and shipped. Bring out the necessity of stores, factories, merchants, and workmen in city life, how they make things and sell them to the farmer in exchange for bread, meat, and clothing. Have children get something of an idea of the intricate interdependence of modern life, and how the work of each one influences the lives of many others.

(e) Talk about the building of a house as a type of the union of country products with city labor. If possible take the class to visit some house which is being built near by.

(f) What trains and ships bring to San Francisco and take away, and the need of both. What would happen if both stopped running. Need of wharves and piers.

(g) Parks, churches, schools, libraries, police, a city hall.

PICTURES AND MAPS.—Begin to use pictures in this grade. Show the pupils pictures of the city and of the geographic types studied. Bring out the difference between a map and a picture. Develop the idea of a scale, though do not apply the idea to any work of much difficulty, such as drawing a map of the schoolroom

to an accurate scale. Teachers should draw a number of simple maps on the blackboard, drawing to an approximately accurate scale, and drawing such objects as the schoolyard, a peninsula, the city square on which the schoolhouse is located, a railroad track, sidetrack, and depot, a creek flowing across a field, under a fence, past a house and emptying into the bay, etc. The idea of scale can be applied to advantage by permitting pupils to model sand-maps, draw a copy of the board-map of the region, or to construct, following directions, a simple map of the streets of the neighborhood. All such drawings should be large, not small, the blackboard or large paper being used.

All of the work of this grade should be oral, no book being in the hands of the pupil. Teachers may refer to pages 1-16 of the *State Elementary Geography* for suggestions, but should follow the above outline instead of the material given in the *State book*. Parker (pp. 141-161), Redway (pp. 5-27), and McMurry (pp. 5-29) contain good suggestions. Remember that observation must be the basis of all other forms of geographical study, and that one teaching of the above will not secure clear-cut ideas.

FOURTH GRADE.

FALL TERM.

Make such a review of Third Grade work as may be necessary to get a good grasp of the ideas. During 1900-1901 it will be necessary to spend more time on Third Grade work than afterward. The *State Elementary Geography* to be in the hands of the pupil. Use pages 5-16 as a reading book and a basis for questions and discussion. Omit such definitions as mountain system, plateau, rapids, river basin, watershed, and crevasse. Draw a map on the blackboard after the plan of the map on page 16, covering the locality of the schoolhouse, and question the class after the plan indicated on page 16. Draw other maps and proceed in the same manner, until pupils can read easy maps without hesitation.

Use a globe to teach the form of the Earth and its daily motion. Reason for day and night. Use the globe and a wall map to teach

the Hemispheres, the Grand Divisions, and the Oceans. Use the State Elementary Geography (pp. 17-21) as a reading book and refer to the maps of the hemispheres on pages 30-31. Make this work quite simple and do not expect more than a good general idea. The work is difficult for children to grasp, and is only introduced here that pupils may get a general conception of the world as a whole.

Read pages 21-24 on heat, moisture, and climate. There should be a number of simple experiments to illustrate these chapters or they will not be intelligible. Pupils should be asked to observe the simple illustrations to be found all about them. Jenkins and Kellogg's *Nature Study* (pages 79-94) will give teachers some suggestions. Talk with the pupils about climate and life in different parts of the world. In each instance have the pupils notice the location on the hemispheres (pages 30-31) or on the wall map. Study pages 28 and 30-31 from the open map. Read the sections on Races and Governments, and talk with the pupils and read to them about human life in different parts of the world. Use many pictures to illustrate the subject. Suitable reading material will be found in Miss Pratt's series of Geographical Readers (Ed. Pub. Co.); *Little Lucy's Wonderful Globe* (Ed. Pub. Co.); Andrews' *Seven Little Sisters who Live on the Round Ball*; *The World and its People*, II (Silver, Burdette & Co.); and books of travel which are written in a simple style and do not enter into minute details.

The above work should occupy about three or three and a half months' of time, and should form the necessary basis of world knowledge for the work of the Fourth and Fifth Grades.

Using the sandboard, model a relief map of California, and using colored crayons draw a map of the State on the blackboard, using the same scale, or a multiple of the scale. Color rivers, lakes and bays blue, valleys green, mountains brown, and the high summits white. Do not use any maps which show the State in two pieces, with Southern California separated and placed in some other than the real location. Such maps give distorted ideas to children and are harmful.

In molding and drawing the map of the State follow the map on page 63. Keep both maps before the pupils until they are famil-

iar with the relief as shown in sand and as shown by colored crayons. Refer the pupils to page 63 and have them see the identity.

Next refer the pupils to the map on page 28, and have them see the identity of all the maps.

The best picture of a relief map of the State is published in the "Monthly Reports, California Section, of the Climate and Crop Service of the Weather Bureau." Copies may be obtained by sending a request on a postal card to The Forecast Official, San Francisco. One of these maps should be mounted on a card and hung where pupils can see it.

Draw lines on the sand-map, the board-map, and the book-map which will locate the area studied in Third Grade, and call the attention of pupils to the size of the State. Mention the time it takes by train to go from San Francisco to San Jose ($1\frac{3}{4}$ hrs.), to San Diego (26 hrs.), to the northern line (17 hrs.), to the eastern line (12 hrs.), and to the south-eastern corner (29 hrs.).

(See Spring Term's work for note on the teaching of Local History).

SPRING TERM.

Continue the work on California. Each pupil in this grade should model a map of the State on the sandboard. Use pages 64-70 as a reader, the teacher or pupils expanding the text by relating personal experiences in traveling to the places mentioned, or the teacher's reading from suitable books. The Southern Pacific guide-books describe trips by rail, and circulars describing Lake Tahoe, Yosemite, and the Big Trees can be obtained easily. Use many pictures. Geographic scrap-books (see Introduction) should be in use in this grade.

Follow the journeys and descriptions on the map. Locate the railway lines on the board-map with red chalk, and also locate the places studied about and a few of the chief cities.

Supplement the foregoing by a map study of the following topics:—

- (a) Climate of the different parts of the State.
- (b) Rainfall or snowfall in different parts of the State.
- (c) Chief drainage systems of the State.

(d) Occupation of the people of the different parts of the State.

(e) Density of population of the different parts of the State.
(Relative, not statistical.)

Study the maps and the map questions on pages 28 and 62-63, answering all questions from the open map. Have pupils go to the board map and point out the answers to the same questions.

Make a study of the chief features of the coast-line of the State, such as the chief headlands, harbors and cities, the ports at which the coast vessels touch and what they carry to and fro. Study a few coast cargoes, as given in *The San Francisco Commercial News*. (See particularly the issue containing the monthly summary) or a daily city paper. Describe a journey along the coast.

Make a topical study of the productions of the State, as given on pages 71-81 of the State Elementary Geography. Use these pages for reading, following the development of the subject. Teachers should expand each topic by showing pictures, relating experiences in visiting places described, asking pupils to tell of any visits they may have made and what they saw, reading short single descriptions, and illustrating by specimens whenever a concrete illustration will be of advantage. Pictures will be most useful. Encourage pupils to make collections of subjects given in the text-books; add a study of irrigation, where the water comes from, how it is stored, and how the fields are irrigated.

Do not fail to emphasize, throughout all of this work, the intricate interdependence of modern life. Due to the larger area covered, this interdependence can be emphasized much better than in the Third Grade. Place a breakfast or a dinner *menu* on the black-board and talk over such points as what part of the State each article came from, how it was gotten ready for shipment, how shipped to San Francisco, through what hands it passed from the wharf or the depot to the home, and where the money came from that paid for it. Use other means to bring out the point that we are all joined together in society and that the part which each one plays has its influence on many other lives.

After having studied the Physical and the Commercial Geography of the State, turn to the maps on pages 82-83, showing the Political Geography, and study the map questions from the open

map, down to the questions involving the use of a map of the United States, which omit. Begin at page 81, cities and towns, and read to page 88, teachers and pupils talking over what the book contains. Do not require the memorizing of the details relating to the cities, as they cannot be retained without an unnecessary expenditure of effort.

Throughout the work of both terms try to connect the work in Local History with the work in Geography. To illustrate: While marking out the principal railway lines of the State bring in the story of the Donner party as typical of crossing the plains before the days of railroads; while studying the coast line bring in the stories of Drake and Cabrillo; while studying gold-mining bring in the story of the discovery of gold, the rush to California, and the rapid development of the State; etc.

There is no objection to mentioning occasionally Nevada, Oregon, Washington, New York, or other States of the Union, or even allowing pupils to turn to the map of the United States or of the World to look up some place mentioned in a reader, such as New England in *Stories of Colonial Children*, or Virginia, in connection with John Smith. A little of this is probably valuable, but there should be no attempt to do any systematic teaching beyond the geography of the State during this year. If the pupils are thoroughly grounded on the relief, productions, and commercial intercourse of our State they will be prepared to do rapid work in the future: but if these points are hazy, future work will be slow.

FIFTH GRADE.

FALL TERM.

After 1900-1901 do the following work:—

Begin with a review of the shape of the Earth, its revolutions and relation to the sun, hemispheres, continents, oceans, zones, heat, moisture and belts of climate, as indicated under Fourth Grade work, spending only so much time on these points as may seem necessary to bring them to mind again.

Follow this by a study of North America, State Elementary

Geography, pages 34-45. Study the questions on page 34 from the open map. While studying the map and the text keep in mind the map reading indicated further on. Teachers should model a relief of the continent on the sandboard the first day the study is begun. It is impossible to give pupils any conception of the relief of North America unless this is done. Teachers should show pupils such relief maps of North America as those contained in Frye's Complete Geography, pages 28 and 34-35. There should be a copy of this book in each school, if for no other purpose than to show the pictures and the relief to the children. If the Department is not able to furnish the book, teachers will find it a good investment to provide it themselves. (Ginn & Co., \$1.25). If Frye's maps cannot be obtained use the one on page 44 of the *State Advanced Geography*.

Locate California on the sandboard relief, and on a wall map (draw a map of North America on the blackboard if there is no wall map), that pupils may have a clear conception of the relation of the part studied to the remainder of the continent. Have the pupils do the same on one of the geography maps.

In this grade try to teach pupils to read from maps some of the simple geographical elements, to make a map mean something more than a mere flat surface marked off by political divisions, which are purely artificial boundary-lines. A pupil in this grade ought to learn to see on a map such points as:—

- (a) Which way any portion slopes (streams).
- (b) Is it up-hill or down-hill or both between such places as St. Louis and New Orleans, St. Louis and Denver, Washington and Cincinnati.
- (c) The lines marking the great watersheds.
- (d) Where to draw lines which would enclose the great drainage basins.
- (e) Whether or not a coast has good harbors for commerce.
- (f) That if the country is only gently sloping, it is probably good for agriculture; that if it is mountainous, it is probably a good mining region.
- (g) That if the slope is sufficient to cause rivers to flow rapidly

they will be used for water power, and hence great manufacturing cities will spring up at the falls of the rivers.

(h) That there would be a natural exchange between mining and agricultural communities and between both and cities, which would demand transportation facilities.

(i) That cities spring up along the lines of these exchange routes, and at points where a number of routes cross or diverge or where a distributing center is needed.

Pupils in this grade should also be expected to learn:

(a) The locations of the Appalachian, Rocky, Sierra Nevada, and Coast Range Mountains; locations of The Great Lakes; location, directions of flow and outlets of such rivers as Hudson, Mississippi, Ohio, Missouri, Columbia, Sacramento, and San Joaquin; the location of such bays and gulfs as Chesapeake, Delaware, Mexico, California, and Puget Sound; such capes as Cod, Hatteras, and Mendicino; and such bodies of land as Isthmus of Panama, Newfoundland and Long Island.

(b) Learn the locations of at least twenty-five important capitals and cities in the United States; two in other grand divisions.

(c) Four or five important industries or products of each of the four divisions of States; two in foreign countries. Keep these subjects in mind during both this and the following term. Do not attempt to teach all of the foregoing in a day, but teach gradually and try to have pupils able to read a map in this way by the close of the year.

Make such work very concrete at first. Use drawings and explain what cannot be easily reasoned out. After the explanation apply what has been told to the recognition of similar elements elsewhere. Such fundamental elements as watersheds and drainage basins, while often presenting much difficulty, are easily understood if illustrated from the schoolyard, the gutter, or the streets after a rain. The natural basins and the divides of San Francisco ought to make watersheds and drainage basins very easy to teach.

Keep carefully in mind what is said under Fourth Grade work about bringing out the commercial interdependence of communi-

ties, and that this seeks an outlet through trade, linking communities to one another.

Begin at page 48 and take to page 62. Study the map questions on pages 48-49 from the map, omitting paragraphs 1 and 7. Ask other questions of type of those of paragraph 9 and as previously indicated under drill in map reading.

Use the description, pages 49-62, as material for reading. Use the map in connection with all descriptions and comparisons of natural features, and bring in thought questions until it is seen that the pupils really "understand the reasons why." Pupils in this grade should be given a chance to try to model a map of North America in sand.

This grade is the proper place to arrange a production map of the United States. The first thing needed is a map of the United States. A very good map for the purpose is the one issued by the Burlington Railway. This map may be obtained, express free, for 15c. in stamps (Address Passenger Dept., C. B. & Q. Ry., Chicago). This map indicates the principal railways west of Chicago by heavy lines, and shows the mountain ranges. The density of population is easily told by the size of the counties and the number of towns and railways. Call the attention of pupils to this. The map should be mounted on a board, to preserve it. Now paste on the map the chief products at the proper places. The map on pages 46-47 will be a partial guide. Only the real objects, so far as possible, should be pasted on. In this way there is an opportunity to do valuable work in the study of productions. Each one should involve a certain amount of class conversation, and pupils should be asked to find out something about the different products and report the information to the class. In the classroom, where pupils may examine them at any time, there should be gotten together a small collection of natural products. Many of the children have never seen such products as corn on the ear, wheat, wool, crude oil, marble, tobacco, etc. Most of these can be obtained by the children at home, at stables, or at buildings. The more difficult ones may be gotten by teachers. As each one is taken up there should be talks as to how it is raised, mined, gotten ready for market, the processes and labor involved, where marketed, by whom used, what those who prepare

it for market get from the market in exchange for their commodity. Again bring out the interdependence of communities, and show how hundreds of people all over the United States are at work to feed and cloth the man who is working to get one thing ready for them. After the class lesson paste samples of the products on the map over the localities where the product is raised; thus:—grains of corn on Indiana, Illinois, Iowa, Nebraska, Kansas; bunches of cotton on each of the Southern States; pieces of coal on Pennsylvania, Indiana, Illinois, Alabama, and Arkansas; tobacco-leaves on Kentucky, Virginia, North Carolina, etc. For fruits, paste small pictures of the fruits; for manufacturing districts paste a picture of a factory; put a horse on Kentucky and a steer on Texas; for gold and silver, paste gold and silver paper; along the coast paste pictures of ships, fish, and oysters just off shore; in the lumber regions paste small pieces of pine, or cedar or redwood; for minerals, paste on pieces of lump-salt, iron, lead, marble, granite, etc. Wherever pictures cannot be obtained paste a small piece of paper and write the name, as crude oil. This map should be in sight at all times. Such work not only teaches products in about the only sensible way, but at the same time gives much valuable information about real things,—how they are obtained and refined, and the part they play in the commercial life of the United States. Do not attempt to memorize the products from the text-book.

Supplement what is found in the text on the United States by reading from Carpenter's *North America* (Am. Bk. Co.) This book contains good accounts of the industries of the country, and has good pictures. Much information as to products and industries may be obtained from the series of maps in Frye's *Complete Geography*.

Occasional lessons may be given on the geography of current events. The newspaper should not be brought into the classroom and read from (the suggestion to read from the newspaper is too strong as it is), but the facts should be related by the teacher, and the places should be looked up on the map. Once a month will be enough for this work.

Give frequent rapid oral review-questions on what has been studied; such as, What great city near the southern end of Lake Michigan? In what State is it situated? Where are the Rocky

Mountains? What direction do they trend? What great valley east of them? Where is Denver? What is the capital of California? What direction is Florida from New York? From New Orleans? From Boston? From Ohio? What direction is Kentucky from Virginia? etc. See suggestions in the Introduction to this course.

During 1900-1901 pupils coming to Fifth Grade will not have studied any geography of California, and this should be done without further delay. Refer to Fourth Grade outlines, and during this term do the work indicated there on the study of California. It should not be necessary to do any review work on pages 5-45. Pupils of this grade during 1900-1901 will also not have had any Local History, so refer to Fourth Grade History outlines and correlate with the Geography of the State of the State, as indicated above.

SPRING TERM.

After 1900-1901 do the following work:—

State Elementary Geography (pages 88-130). Use the book largely as a reader and answer the map questions from the open map. Omit or simplify questions which are technical or too involved. Such questions as, "Where are the colleges of Canada chiefly found?" or "Name all the seaport towns on the map" (Europe) are questions of little educational value. On the other hand, many of the topics deal with questions which are vital ones, such as the life of the common people, how it compares with life in America, the reason for agricultural and manufacturing conditions, and the commercial interdependence of Europe with the remainder of the world.

Try to center the work of the term about the following topics as applied to each of the Grand Divisions studied:—

(a) Map interpretation; ask many thought questions to be answered from the map.

(b) Commercial and industrial conditions as determined by the geography.

(c) Commercial interdependence with the world; a few exports

and imports, what we get from the country, what we send, and what States send it.

(d) Climate as compared with that of California.

(e) Mode of life of the people, education, means of communication, representatives in San Francisco.

(f) Form of government contrasted with our own.

(g) Becoming acquainted with the names and locations of a few of the principal countries, cities, rivers, mountain ranges, and seas of each Grand Division, but particularly Eurasia.

Remember to keep the personal element prominent in this grade. Read from such books as *Our American Neighbors* (World and Its People, IV), Carpenter's *Asia*, and books of travel. Try to have pupils understand and to awaken a strong interest in what is studied instead of merely memorizing the text.

In beginning the study of each continent, and before the map questions are taken up, model the continent in sand so as to show the relief. Also show the pupils pictures of relief as given in Frye's *Complete Geography*. A relief map drawn with crayons on the blackboard will be very valuable in connection with the map interpretation. This should be drawn by the teacher. Progressive outline and production maps are optional. Pupils should be given a chance to model the Grand Division in sand.

Continue the rapid review drill indicated under Fall Term.

In the History Course Eggleston's *First Book in American History* is indicated to be used as a reader in this grade. Look up the places mentioned in it, both in Europe and America. Trace the journeys of the early navigators by drawing lines on the the geography maps. Add new interest to the work in Geography by correlating it with History.

During 1900-1901 only Fifth Grade classes will have studied North America, but will not have made any study of the geography of the United States. During the year 1900-1901 only, begin with the United States, page 46, and study pages 46-88 as directed above under Fall Term's work. As soon as this is completed study Canada and Mexico, omit Central and South America, and study Europe, and, if sufficient time remains, Asia. Follow the directions

given above as to methods of study. The work on foreign countries may be shortened somewhat this year, if found necessary.

SIXTH GRADE.

FALL TERM.

State Advanced Geography in the hands of the pupils. Make a topical study of the following:—

1. Early beliefs as to the shape of the Earth. Early voyages. Rotundity of the Earth; proofs thereof. Commercial impetus to discovery.

2. Daily and yearly motions of the Earth, inclination of the axis, change of seasons, changing length of day and night, the poles and the equator, climatic zones, and relation and relative size of Sun, Moon, and Earth. Make this topic quite concrete by illustrating with globes and objects, and explain in simple language.

3. Latitude and Longitude. Make clear that the equator is merely a reference-line on the Earth's surface for distances north and south of it, just as Market street is for San Francisco, and that we measure distances from it in miles on the earth's surface, just as we do in squares in the city. But distances are so great that miles are as poor a measure for the Earth as feet would be for the city, so people have devised a larger unit which corresponds to a city square—the degree. Draw a circle on the blackboard and explain that men have arbitrarily said that it shall be divided into 360 parts, and that the distance from the equator to the poles is 90 parts, or degrees. Make this clear by illustrations and questions.

Take a large orange or rubber ball to illustrate the points. Stick in two nails or make two dots for the poles and tie a string or draw a line around it for the equator. Make a mark at one-half of the way, one-third of the way, two-thirds of the way, and one-ninth of the way, and ask the pupils to tell the number of degrees. Next, draw an outline of North America on the orange or ball and let the pupils see the similarity to a Globe. Add South America, and note the similarity. Add Eurasia, Africa, and Australia. Pass

the orange or ball about and have the pupils notice what you have drawn. Turn to the map of North America (page 42) and notice the parallels of latitude.

Similarly develop longitude. Illustrate from street in the neighborhood, or, better still, draw a map of a regularly laid-out city, with all streets at right angles and running north and south, and east and west. Take a central street in each direction as standards. Name one Main and the other Market, and the parallel streets by numbers and letters. Show how easy it is to tell where one lives if you know it to be at the corner of Main and South Eighth or the corner of South F and East Fifth.

Apply this to the orange or the ball and to the map. Explain about the prime, or 0 degree, meridian. Find 0 degree of latitude and 80 degrees of west longitude; 30 degrees of north latitude and 90 degrees of west longitude, etc.

Give locations in degrees only, to be looked up on the maps until pupils see that latitude and longitude are simple yet universal means of telling where a place is on the surface of the Earth,—that travelers and sailors use it as a universal means of location.

Make a few clippings from a daily paper, such as the following:—

SPOKEN.

May 12, on equator, 29 W, Ger bark Altair, from London for San Diego.

Per Fr bark Dayout—May 7, lat 56 S, lon 77 W, Br ship City of Glasgow from Caleta Buena for Queenstown.

Per Br ship Beechbank—June 27, in lat 33 N, lon 131 W. From Valparaiso for Hamburg.

Jun 8—Lat 3 N, lon 28 W, Br ship Peleushence Mar 8 for Queenstown.

May 17—Lat 11 S lon 32 W, Ger ship C H Watjen from Cardiff for Nagasaki.

Per stmr City of Puebla—Jun 26—37 miles NW of Point Reyes, bktn Addenda from Columbia river for San Francisco.

And look up the approximate location when spoken, and the port of sailing and destination. Note the routes vessels take. Explain the system of reporting vessels "spoken." Use nothing smaller than degrees in this grade.

4. Longitude and Time.—By questions and illustrations bring out why it is that whenever one travels 1-24 of the distance around the world (15 degrees) from east to west or west to east one gains or

loses an hour of time. Do not attempt to teach the regulation of chronometers for sailing vessels. The object of such questions at this time is to form a basis for the study of time as applied to the United States. Turn to the map on pages 90-91 and note the changes of time. Ask questions to ascertain whether or not pupils understand. Write on the blackboard such a notice as the following, clipped from a morning paper, and explain why such notice is given to mariners:

Branch Hydrographic Office, U. S. N., Merchants' Exchange, San Francisco, June 25, 1900.
The Time Ball on the tower of the new Ferry building was dropped exactly at noon to-day, i.e., at noon of the 120th meridian, or at 8 P. M. Greenwich mean time. C. G. CALKINS,
Lieutenant-Commander, U. S. N., in charge

Topics 3 and 4 represent the valuable parts of latitude, longitude and time. Enough practice should be given to cause pupils to understand the principles involved, and from time to time throughout this and the succeeding year occasional questions should be asked to keep the principles in mind. Do not attempt to memorize latitude and longitude of places at any time. The subject is essentially a geographical and not an arithmetical one, and no questions (problems) should be given which are not capable of answer from the open map. Aim only at a general understanding of the principles and do not spend any large amount of time on the subject, as it will be taken up again under Eighth Grade. Use degrees only in this grade.

In the History work call attention to the latitude and the longitude of Columbus's voyage, and to the ideas of Cabot as to shorter routes by northern parallels.

5. Position of North America with reference to the other grand divisions, oceans, hemispheres, and climatic zones. Use maps.

6. Extent and size compared with the other Grand Divisions. Use a wall map of the hemispheres or the map on page 6. Do not use such a map as the one on pages 141-142 because of the horizontal exaggeration in high latitudes. In comparing get relative size, not square miles.

7. Outline of the Continent. Have each pupil work out a pro-

gressive outline map as the study proceeds. See suggestions as to outline maps, in the introduction to this course. Have pupils locate on the progressive outline maps: Arctic Ocean, Baffin's Bay, Hudson Bay, Hudson Strait, Atlantic Ocean, Arctic Ocean, Gulf of St. Lawrence, Gulf of Mexico, Caribbean Sea, Isthmus of Panama, Pacific Ocean, Gulf of California, Bering Sea, Bering Strait. Contrast the outline of the eastern and the western coast and the advantages of one coast over the other. Locate Cape Cod, Cape Hatteras, Cape Race, Cape Farewell, Cape Mendocino, Greenland, Newfoundland, Nova Scotia, West Indies, Vancouver, Bermudas, Bahamas, Aleutian Islands.

8. Surface, or Relief. Use the relief map, page 44 and the ones in Frye's *Complete Geography*. Modeling of the map in sand optional. Study and locate on the progressive outline map the Appalachian Highlands, the Rocky Mountains and Coast Range Highlands, the Height of Land, the Atlantic Slope, the Pacific Slope, the Arctic Slope, the Great Central Basin, and the Basin of Utah and Nevada. Make clear what is meant by elevation above sea-level.

9. Drainage of the Continent. Trace on the progressive outline maps a few of the principal rivers of the drainage systems of the Atlantic Slope, the Pacific Slope, the Utah-Nevada Basin, the Arctic Slope, and the Great Central Basin. Locate the Great Lakes and the St. Lawrence River.

10. Climate of the Continent and effect on products and inhabitants. Effect of latitude, altitude, ocean currents, winds, rainfall, and proximity to large bodies of water. Adv. Geography, pages 46-47, omitting sections 280-282 and 291-293, and the "Thought Questions" and "Exercises and Problems."

NOTE ON TOPICS 5-10. These should be worked out by questions from the map, and much of it incorporated on a progressive outline map. The work should be study in map interpretation, and the questions of the book should be supplemented by others asked by the teacher. In the study of the above topics study the questions on page 43, using the open map, from "Position" to "Coast

Line" inclusive; read from pages 44-47 and 49; and study the questions on page 51, using the open map and omitting "Exercises and Problems" and "Thought Questions."

On the outline map locate twenty or twenty-five of the chief cities of North America.

11. Political Divisions of North America.—*Adv. Geography*, pp. 48-49 and 54-55, with map questions answered from the open map, but omitting "Map Reading" and cities on page 54. Under "Directions and Distances" learn in round numbers the directions and distances from San Francisco of Portland, Vancouver, San Diego, Sacramento, Denver, Chicago, New Orleans, and New York. The foot-notes on page 54 may be read, and if read should be explained, but should not be memorized.

12. The United States by natural groups of States, as indicated in the *Advanced Geography*, beginning on page 54.

HOW TO STUDY THE GROUPS.—The following directions should be followed in studying each of the groups of States:—

(a) Have the pupils learn the name and the location of the capital and the chief city of each State. If the chief city is distinguished for anything, as New York for its ocean and railway commerce, have it learned. Also learn the names of the larger and more important capes, bays, and lakes. Do not memorize any statistics.

(b) Study, briefly, a few of the important rivers of the country, and learn the direction of flow, any important tributaries, into, what they empty, the basin drained, and the extent to which the important ones are used for commerce.

(c) In studying each group of States keep in mind the interpretation of the map, the adaptation of the country, and the commercial interdependence, as indicated under previous grades. Have the pupils see *why* large cities are on the large rivers, lakes or good harbors, and that the railway lines go where the commerce is greatest and parallel the lines of greatest exchange. Remember that the land and the rivers and the harbors were in existence long before the cities or the railways, and that the latter have accommodated themselves to the physical conditions.

(d) In studying each group of States read (or relate) descriptions of journeys, the pupils following on an open map. Read from such books as Carpenter's *North America*, the Tarr-McMurry *Geography II, North America* or *World and its People, III, Our Own Country*. Each of these is very good. Use books of travel, guide books, illustrated railway circulars, and as many good pictures as can be obtained. There should be geographical scrap-books for each section of the country studied. Encourage pupils to collect pictures and bring them to school, and arrange them in scrap-books or on cards. Have the pupils look at these pictures while listening to reading, or at other convenient times.

(e) Have the pupils draw a rough map of each of the groups of States, locating the States and about the amount on each which is to be learned, as indicated above. This may be drawn on a sheet of paper while looking at a large map of the group, which should be drawn on the blackboard by the teacher and kept there during the study of the group, or it may be drawn by looking at the map in the book. Very accurate detail work should not be expected of pupils, as a large amount of time may be spent in this manner with little educational gain, and copying the map through tissue-paper should not be allowed. Rapid map-work, with reasonable accuracy, is all that is desired. Such a map ought to be drawn in twenty to twenty-five minutes.

(f) From time to time give rapid review work, work which is analogous to rapid mental drill in Arithmetic, on such questions as, In what State is Albany? What direction from New York City? On what river? What direction from Boston? From Buffalo? Where is Buffalo situated? In what State is Providence? What is the capital of Massachusetts? Where is Cape Cod? What is the chief occupation of the people of the Massachusetts cities? What is mined extensively in Pennsylvania? For what used? Describe (briefly) the course of the Connecticut River? What two States are south of Massachusetts? What ocean east? For what is New York City noted? etc.

(g) Do not attempt to memorize all of the productions and industries of each State. Single out two or three of the most im-

portant ones. To memorize mechanically productions and industries is of much less educational value than to use them to understand the trade relations and commercial interdependence of the nation. A production and industry map of the United States, such as is described under Fifth Grade, will be very useful. This should be hung up in the room where it may be seen at any time, and repeated references made to it by teacher and class. If there is no such map in the room it would be a good plan to make one and keep it for use in succeeding years. (See Fifth Grade.)

(h) Keep in mind the history of the region, as far as studied, and correlate it with the work in geography by looking up on the map the points of historical interest while studying the history, and refer to the same points in studying the geography of the groups.

GROUPS TO BE STUDIED.—Follow the direction given above. Answer the questions at first from the open map. Select from the questions at the close of each group, or better still, use the rapid review drill as indicated in (f). Substitute questions like What State is north of Pennsylvania? What State south of Massachusetts? What lake north of Ohio? What State south and west of Delaware? for bounding the States. Map bounding is likely to become very mechanical, but the rapid questions on all parts of the map lead to accurate concepts. Study the following groups:—

- (a) The Northeastern States. Pages 58-61.
- (b) The North Central States. Pages 62-64.
- (c) The Middle Belt States. Pages 64-65.

SPRING TERM.

12. The United States by Natural Groups of States. Continue the work as indicated under Fall Term, and study the following groups:—

- (d) The Southern States. Pages 65-69.
- (e) The Western Plateau States. Pages 71-73.
- (f) The Pacific Coast States. Pages 74-75.

13. Commercial Geography of the U. S. Use the map on pages 90-91 and the questions on page 89, omitting "Locality of

Population," and showing the pupils the map in Frye's Complete Geography, page 124. Talk with the pupils about such commercial elements; as,—

- (a) Railways, canals, lake, river, and ocean commerce.
- (b) Production of cotton, cotton manufacture.
- (c) Production of corn, oats, and wheat; how and where shipped; uses.
- (d) The sugar industry, sugar cane, sugar beets, refining sugar.
- (e) Production of tobacco.
- (f) Fruit regions, kind of fruit, shipping to market.
- (g) Raising of cattle and hogs, where shipped, city and foreign demand.
- (h) Raising of sheep; wool, its manufacture.
- (i) The fishing industry; ocean fish, lake fish; shell fish.
- (j) Mining of coal; the demand for it.
- (l) Iron ore; iron and steel manufacture; uses of iron and steel.
- (m) Gold and silver; where found; washing gold; minting money; other uses.
- (n) Copper; where found; uses.
- (o) Salt; how mined; how refined; salt from the ocean; uses.
- (p) The lumber industry; sketch of a tree from the time it is sawed down to the time the board and the shingles are shipped to the market.

Frye's *Complete Geography*, pages 119-141, the Tarr-McMurry *Geography, II, North America*, and Carpenter's *North America* will furnish much material for this topic. Pupils should look at the commercial maps given in Frye. Supplement from other sources.

14. Spend any time remaining on a review study of California, as given in the *Advanced Geography*, pages 74-89. Use the book largely as a reader, and explain or ask questions to bring out what is not clearly understood from the text. Omit sections 502-503, select from the questions on page 80, and an-

swer the questions on page 80 and 83 from the open map. If the earlier work on California has been done well, this topic should not require over three weeks. During 1900-1901 it is a review of what was learned in the Fifth Grade. Pupils should learn the location of the gold-mining regions, the agricultural and the fruit regions, the desert area, what is contained in "Cities and Towns" on page 89; should be able to answer from the open map questions requiring map interpretation such as those contained under "Thought Questions," page 88, and should be able to draw a reasonably accurate outline map of the State.

Continue the rapid review questions indicated under Fall Term, and continue the collection and the use of pictures.

SEVENTH GRADE.

During 1900-1901 only, Seventh Grade classes will follow the outline for Sixth Grade throughout the year. The reason for this is that classes entering Seventh Grade in August, 1900, will not have bought or studied from the State *Advanced Geography*.

After 1900-1901 Seventh Grade classes will cover the work as outlined in the following:—

HOW TO STUDY THE FOREIGN GROUPS.—The following directions should be observed in studying each of the foreign groups:—

(a) Have the pupils learn the name and the location of the capital and one to three of the really important cities of each country studied, and for what the cities are remarkable, commercially, educationally, or historically. Also learn the names and locations of a few of the more important headlands, such as North Cape, Land's End, and Gibraltar, and a few of the more important seas, such as North Sea, Baltic Sea, Mediterranean Sea, and Black Sea. Do not memorize statistics or pay much attention to them.

(b) Study briefly a few of the important rivers of the country, and learn direction of flow, the basin drained, into what they empty, and the extent to which they are used for commerce.

(c) In studying each country keep in mind the interpretation of the map, the adaptation of the country to agriculture, commerce,

etc., and the commercial interdependence which the nation must necessarily maintain with other countries. Have the pupils see the *why* of agricultural and industrial conditions, so far as these are evident from a study of the map. Study the influence of relief and climate on the lives of the people.

(d) In studying each country read (or relate) descriptions of the conditions existing, such as city life, country life, means of travel and communication, customs of the people, their religion, how like or unlike Americans, form of government, etc. Make this work as vivid as possible by bringing into it descriptions outside of the text, drawing on such sources as geographical readers, books of travel, guide-books, pictures, etc. There should be geographical scrap-books for each country studied. Encourage pupils to collect pictures and bring them to school and arrange them in scrap-books or on cards.

(e) Have pupils draw rough outline maps of each of the larger groups of countries studied, locating the more important divisions, a few of the important rivers, the chief mountain system, and a few important cities. These should be drawn as indicated under suggestion (e) for Sixth Grade work.

(f) From time to time give rapid review work on such questions as, Where and what is London? Paris? Constantinople? Where is the North Sea? What country between Spain and Germany? What country west of Spain? What sea east of Italy? What river is London on? Is there much commerce on it? Why? Do the English raise their wheat or buy it abroad? Where do they buy it? What is the ruler of England called?

(g) Also give a few minutes of rapid drill-work, from time to time, to looking up the answers to such questions as the following: I go from Quebec to Rome; what waters must I pass through? A vessel goes from Philadelphia to Manila, touching at Lisbon, Alexandria, Bombay, Calcutta, and Singapore; what waters will it pass through, and in what countries are these places located? Use the open map, and use the work for drill,—not memorizing.

In the same way occasionally trace the routes of vessels, as indicated by clippings from a daily paper, such as the following:—

ARRIVALS AT FOREIGN PORTS.

ST. JOHNS, N F—Arrived Jun 26, stmr Assyrian from Glasgow and Liverpool for Halifax and Philadelphia.

PALERMO—Arrived Jun 26, stmr Victoria from Genoa for New York

LIVERPOOL—Arrived Jun 26, stmr Parisian from New York, stmr Dominion from Montreal.

ST. JOHNS, N F—Arrived Jun 26, stmr Lake Huron from Montreal for Liverpool.

GIBRALTAR—Arrived Jun 26, stmr Ems from New York for Naples and Genoa.

Sailed Jun 26, stmr Kaiser Wilhelm II from Genoa and Naples for New York.

PLYMOUTH—Sailed Jun 26, stmr Pennsylvania from Hamburg for New York.

SOUTHAMPTON—Sailed Jun 26, stmr Trave for New York.

Arrived Jun 26, stmr Kaiserin Maria Theresa from New York via Ch. rbourg for Bremen.

CHERBOURG—Arrived Jun 26, stmr Kaiserin Maria Theresa from New York for Southampton and Bremen.

MISCELLANEOUS MARINE NOTES.

The British ship Marechal Suchet cleared yesterday for Queenstown with a cargo of wheat.

The steamer Curacao sailed from Ensenada yesterday afternoon, according to a dispatch, and will arrive here to-morrow afternoon.

The steamer Energia, of the California and Oriental line, sailed yesterday from Port Hadlock for Australia with a cargo of lumber. She will proceed from Australia to Hongkong to load for this port.

The steamer Australia will sail to-morrow afternoon for Honolulu with a heavy cargo of freight and many passengers.

The Pacific Mail steamer Peru will sail Thursday for Panama and way ports.

The Kosmos steamer Seraphis arrived at San Diego yesterday morning on the way from Hamburg and Valparaiso to this port and is expected to arrive here to-morrow.

(h) Throughout the year keep in mind the historical connections, and from time to time have lessons on the geography of current events, though this should be done by mentioning places and events, or by clippings, and not by bringing newspapers into the classroom. The suggestion to spend a large amount of time over the daily paper is strong enough without encouragement.

(i) Do not attempt to memorize all the productions and industries of a country. Single out two or three of the most important ones. A production and industry map of each Grand Division, such as is described under Fifth Grade, will be very useful. This

should be where the class may see it at any time, and the teacher and class should refer to it frequently. The making of such maps is optional.

FALL TERM.

Canada, Mexico, Central America, and the West Indies, South America, Eurasia, and Western Eurasia or Europe. State Advanced Geography, pages 92-116. Omit "Political Divisions," on page 95; "Exercises and Problems" page 108, and all questions relating to density of population or points in physical geography not studied in this or previous grades. Read from such books as Carpenter's *North America*; Carpenter's *South America*; *World and Its People*, IV, *Our American Neighbors*; *World and Its People*, V, *Modern Europe*; books of travel; guide books; etc.

SPRING TERM.

The British Isles, Southwestern Europe, Turkey, Southeastern Eurasia, Japan, Africa, and Oceanica. State Advanced Geography, pages 116-139. Omit all questions on pages 130, 135, and 139, and the second column of questions on page 136, and all questions relating to points in physical geography not previously studied. The countries worthy of particular study are the British Isles, Germany, France, Spain, Italy, Russia, Turkey, Egypt, China, and Japan. Read from such books as Carpenter's *Asia*; *World and Its People*, V, *Modern Europe*; same, VI, *Asia*; same, VII, *Africa*; same, VII, *Australia*; books of travel; etc.

EIGHTH GRADE.

During 1900-1901 only, Eighth Grade classes will follow the outline for Seventh Grade throughout the year. The reason for doing this is that classes entering Eighth Grade in August 1900 will not have studied further than the United States.

After 1900-1901 Eighth Grade classes will cover the following lines of work. *State Advanced Geography* in the hands of the pupil. Develop the work topically. Omit Local and Home Geography, pages 8-10.

This work will be very interesting and profitable, or very dry and irksome, according to whether or not teachers put some life into the work. To assign lessons and have them recited from the State Text, without supplementing the work from some other source, cannot fail to prove deadening to interest. Teachers should not attempt the work without bringing into it something more than what is given in the State Text. Tarr's *First Book in Physical Geography*, (Macmillan, \$1.40) is probably the best for teachers' use. Frye's *Complete Geography* will also be of much help. Both books contain excellent pictures.

The work should be illustrated and made vivid by the use of many pictures and simple experiments, by clippings describing recent happenings in the physical world, extracts from books of travel, railway circulars, etc. Such booklets as *The Grand Cañon of the Colorado* (Santa Fe Route) or *Wonderland* (Northern Pac. Ry.) contain excellent pictures of erosion and geysers. If the work is to be valuable, it must be put before the pupils in the form of a number of clear-cut pictures. The work is both Geography and Nature Study.

Study the following topics:—

1. The Earth in space; form, revolutions, cause of day and night, inclination of axis and cause of seasons, sun and moon, revolution of the moon, cause of eclipses (5); Tarr, 3-23.

2. Hemispheres, latitude and longitude reviewed, division of degrees into minutes for greater accuracy, location of ships "spoken," (6-7).

3. The atmosphere; importance of height, barometric pressure, decreased pressure at high altitudes, ascents in balloons (22-3, sections 131-134); Tarr, 32-42.

4. The Surface of the Earth; relief, highlands, lowlands, continents and islands, coast lines (14-15); Tarr, 313-342.

5. Mountains, earthquakes, and volcanoes (12-14); Tarr, 344-361.

6. Rivers, Glaciers, Lakes, Oceans (16-19); Tarr, 261-310.

7. Erosion and sedimentation, underground waters, effects of weathering (11-12); Tarr, 240-286.

SPRING TERM.

See directions under Fall Term.

After 1900-1901 study the following topics:—

8. Climate; heat of different portions of the earth at different seasons, climatic zones, source of the heat (19-21); Tarr, 55-69, 149-164.

9. Winds, air currents, air pressure, land and sea breezes, velocity of the wind (omitting or simplifying trade winds), storms, high and low pressure, the weather service, weather predictions, show weather maps (22-24); Tarr, 85-125.

10. Rain, Snow, Fog, Clouds, Dew, Frost, and Hail (25); Tarr, 126-148.

11. The Ocean; waves, tides, ocean currents (26-28); Tarr, 205-219.

12. Distribution of Animals and Plants (28-31); Tarr, 165-185.

13. Mankind on the Earth; history, races, dwellings, clothing, food, religions, occupations, and government (31-40).

3. REFERENCES.

The following books and articles on the teaching of Geography are easily accessible and will be found valuable by teachers of the subject:—

Committee of Ten. *Report of*, on teaching Geography, pp. 204-234, but particularly pp. 216-227 on methods of presentation.

Davis, King, and Collie. *Use of Governmental Maps in Schools* (Henry Holt, 40c.). Gives descriptions of the maps, and tells how to get and use them.

Davis, W. M. Teaching of Geography. (a) What to Do, *Educ. Rev.*, Vol. III (May, 1892). (b) What to Avoid, *Educ. Rev.*, Vol. IV, pp. 6-15 (June, 1892).

Frye, Alex E. *Primary Geography* (Ginn, 60c.).

Frye, Alex E. *Advanced Geography* (\$1.25).

Frye, Alex E. *Teachers' Manual*, to accompany the above (50c.).

Frye, Alex E. *Child and Nature*; or Geography Teaching by sand-modeling (80c.). Good; contains list of books of travel.

Hall, G. Stanley. The Story of a Sand-Pile, *Scribners*, June, 1888.

King, Chas. F. *Methods and Aids in Geography* (Lee & Shepard, \$1.35).

Maltby, A. E. *Map Modeling in Geography and History* (E. S. Kellogg & Co., \$1.20). Good; well illustrated.

McMurry, Chas. *Special Method in Geography*. (Pub. Sch. Pub. Co., 50c.). Very good for work of Grades 1-4, inclusive.

McMurry, Chas. Geography as a School Subject, *Educ. Rev.*, Vol. IX, 448-463 (May, 1895). A very good article. Outlines twenty-nine topics for the study of Europe. Explains the value of teaching by types.

McMurry, Chas. *A Course of Study in Geography*. Supplement to the *Fourth Year Book of the National Herbart Society*. Very good. Outlines topics for all grades (Univ. Chic. Press, 1899).

Parker, Francis W. *How to Study Geography* (Appleton, \$1.50).

Redway, Jacques W. *Teacher's Manual of Geography* (Heath, 65c.).

Reynolds, Joan B. *Teaching of Geography in Switzerland and Northern Italy* (Macmillan, 60c.).

Shaler, N. S. *The Story of Our Continent*. A good book for teachers' use.

Tarr, Ralph S. *First Book of Physical Geography* (Macmillan, \$1.40). Should be studied by all teachers of the Eighth Grade work.

Tarr and McMurry. Series of Geographies (Macmillan, 1900).

1. *Home Geography*, 60c.
 - II. *North America*, 75c.
-

3. GEOGRAPHICAL READERS.

1. The series by Frank Carpenter (Am. Bk. Co.). These are written by a famous traveler and newspaper correspondent, and are well illustrated. Those so far published are:—

1. *Asia* (60c.).
2. *South America* (60c.).
3. *North America* (60c.).

2. The World and Its People Series (Silver, Burdette & Co.). The useful volumes are:—

- III. *Our Own Country* (50c.).
- IV. *Our American Neighbors* (60c.).
- V. *Modern Europe* (60c.).
- VI. *Life in Asia* (60c.).
- VII. *Views in Africa* (72c.).
- VIII. *Australia and Islands of the Sea* (75c.).

3. Books of travel by famous travelers. See lists in Frye's *Child and Nature* (pp. 209-214), and in Redway's *Teacher's Manual* (pp. 167-174). Also see List of Books for Home Reading.

IV. LANGUAGE STUDY.

1. INTRODUCTION.

The work in Language has for its aim the giving to every child the ability to speak and write good, pure English—in other words, the ability to express thoughts in good, clear style. Before children can express themselves they must have a clear idea of what they are going to write or say. Impression must come before expression, and ideas must be given children before we attempt to force from them sentences expressing these ideas. The attempt at expression, however, either oral or written, aids thought, and all work in Language has the double aim of developing originality and power in thinking and in expressing thought. School exercises should have this double end in view, and purely mechanical exercises, such as the copying of reading-lessons or sentences, can have little use in school work after the first year or two. A correct original sentence is worth more from an educational standpoint than a page of copied sentences. The first develops power, while the second is largely mechanical.

Teachers of Language must not overlook or underestimate the importance of habit and example in teaching children to write and speak correctly. In almost no other way can the correct use of the English language be obtained. During the earlier years of a child's life, when a vocabulary is being acquired and habits of expression formed, teachers cannot be too careful to place only correct models before the children. The common errors of children must be eradicated as early as possible, and this must be done by the formation of new habits of speech,—by substitution of correct forms instead of the repression of the incorrect.

The work begun in the Primary Grades must be continued throughout the Elementary School course. The most important work in the Grammar School as in the Primary School is training in the use of simple and correct English. This cannot be attained by memorizing rules or parts of speech from a grammar, or by learning how to analyze or parse. Analysis and parsing are tools, and, if not used too early, may be made of service, but alone they can never take the place of simple drill in the use of English itself. Grammar, as the subject is usually taught, is a piece of Logic, and makes little appeal except to the mature mind, and a prolonged grind on it alone is not likely to develop either ease or accuracy in the use of one's native tongue, while on the contrary, pupils ignorant of parts of speech, parsing, or analysis are able to use good English and give an intelligent reason for doing so, if they have had good training in its *use*.

Work in Language is often ineffective because it is taught as a subject by itself. Language study, more than any other subject, permeates the entire school course, and the work in other subjects should be made to do service in Language work. A portion of the Language time can always be spent in talking about subjects indicated in other courses, resulting in a saving of time and an improvement in teaching. Work in Geography, History, and Reading and Literature should be made the basis of the greater part of the oral and written language,—the oral to predominate in the lower grades, and the written in the upper.

In carrying out the following Course in Language Study the foregoing ideas should be kept in mind. During the earlier years work for ease and accuracy in the use of simple English to express what is already known to the child. At the end of the Second Grade the child should be able to use the sentence correctly. Work hard to eradicate common errors by forming new habits; guard the children against the contagion of bad example; use the best forms from the very first, such as the proper use of "should" and "would," "would better" instead of "had better," "have" instead of "have got," etc. Never put examples of false syntax before the children, either in the form of exercises to correct or in the form of "Uncle Remus" stories read aloud; and try, through

selections to be memorized and through the reading of good literature, to form a taste for the best in literature.

In the Seventh and Eighth Grades, where the technical work becomes more prominent, care should be exercised that the work in parsing and analysis is made intelligent work. Parsing and analysis are useful tools, but, as ends in themselves, are worth but little more than learning to extract the cube root or memorizing the tributaries of the Missouri River. As tools to enable the child to understand the meaning of a sentence and to appreciate what is read, they can be handled by teachers so as to be made of much use to pupils. The danger is that the teaching may easily become mechanical, and the caution needed by teachers is not to abandon the teaching of the subjects, but to use them intelligently as tools and with moderation, and to confine their use to simple work. The value of the Logic in the study, that of a training in thinking and reasoning, can be brought out better with work which is not too difficult.

FIRST GRADE.

MATERIALS.—In general, all school work: Reading Lessons, Geography, History, Nature Study, studies in position, measuring, color, etc.; especially, stories told or read to pupils; morning talks on manners, care of health, etc.; poems read to pupils, selections memorized, picture stories.

AIM.—To use this material, first, that the power of correct and free expression may keep pace with the developing power of thought over all the range of school activities; second, that the emotions and ethical instincts of the child may be cultured by contact with literature that expresses his life in sympathetic relation to his fellows, to inanimate nature and to animals. This aim is constant throughout the course.

MODES OF EXPRESSION.—Oral, written, graphic illustration. To secure ready *oral expression animated by a genuine interest in subject material* is the chief aim of this year's work. No written

work the First Term, but introduce gradually during the Second. The written work should follow the development of the oral and be based upon it.

GRAPHIC ILLUSTRATIONS.—Make use of the picture-drawing impulse to illustrate words, objects, persons, and simple scenes, as the children imagine them from stories told. Do not criticise these rude representations as drawings; value spontaneity; praise originality.

STORIES AND POEMS.—Commence with stories about objects which are familiar and interesting. Use the stories indicated under History, and Reading and Literature. Consult these courses. Short selections to be memorized frequently.

SPECIAL FORMS.—See that each child can tell in sentences, his name, age, and residence. During the second half-year teach each child to write his name and age, and put San Francisco after it. Quietly correct the more common errors of speech as they occur. Teach capitals, use of I, the use of the period and the question-mark, and the plurals and possessives of such nouns as children use or need to use. Bring these into use as fast and as far as they are necessary for correct expression in written work. Secure their use by observation and imitation.

WORD-TRAINING.—The aim in all word-training is to extend the pupil's vocabulary to the measure of his ideas, and to make him more ready and accurate in using his stock of words. To keep this end steadily in view, the teacher must observe the vocabulary of the children and rightly estimate the value of different forms of school work in contributing to growth and accuracy in word-use. Then introduce supplementary exercises if needed. Phonic drill is helpful in getting new words upon the tongue.

Range and accurate knowledge of:

(a) Names—Objects named from observations, from the sand-board, from pictures, from descriptions by the teacher or classmates. (See Geography Course in this connection.)

(b) Actions—Recognized in movement songs, and named from actions performed.

(c) Qualities—Recognition and naming of qualities, especially color, form, size.

(d) Words of place relation—On, over, in, under, into, etc., illustrated objectively.

Keep a list of new words in sight; illustrate them and bring into use.

SENTENCE TRAINING.—Encourage sentence thinking by requiring sentence expression. The child should be able to use all the words of his grade vocabulary in oral sentences.

Give exercises in supplying words in sentences from which a word has been omitted. Allow pupils to construct such sentences for others to fill. Lead to using a given word or expression in an original sentence. Encourage original work.

CONNECTED SENTENCES.—The first effort beyond single-sentence expression, in selection and management of thought, should be carefully fostered. Direct the expression, but beware of controlling it. The beginnings of narration appear in first efforts at reproduction of a story; description in some simple record of two or more sentences founded on Nature Study.

WRITTEN WORK.—(See Modes of Expression as already given.)

(a) Copying exercises to fix correct forms and overcome mechanical difficulties.

(b) Completing sentences from which words have been omitted.

(c) The class composition from subject in reading and conversation lessons. Each of the class to give a statement, the teacher writing the same upon the blackboard. Before having the result read or copied, the teacher may quietly better the connection of thought by some exchange in the order of sentences. The child should no more be presented with sentences poorly connected than with sentences incorrect in themselves.

(d) Original sentences from given word or expression, as far as possible.

SECOND GRADE.

Following the principle underlying MATERIALS and AIMS (see First Grade), the language training of the Second Grade should deal with the whole body of school work.

Stories, talks, and poems will consequently take a somewhat wider range, relating themselves more distinctly to Nature Study, Geography, History, and Literature. (See these courses.)

MODES OF EXPRESSION.—Continue special stress on oral work. Longer efforts in telling a story. Give much exercise in describing familiar objects and incidents, thus leading toward independent effort. Carefully secure clear and distinct expression without checking spontaneity and readiness. Teach pupils to speak freely before the class.

Give written work throughout the year following upon the steps of the oral work, but do not make the mistake of trying to have the written work approach the oral work in ease or finish.

GRAPHIC ILLUSTRATION.—(See First Grade.) Continue as far as useful. Present pictures and make them subjects of conversation.

STORIES AND POEMS.—Continue the use of stories indicated under History, and Reading and Literature courses. Use in particular the story of Robinson Crusoe. Memorize selections as indicated, and have them recited facing the class. Read or relate such other stories as may seem necessary.

SPECIAL FORMS.—Teach pupil to write his name, age, address, and his teacher's name. Teach names of the days of the week, names of months, with proper abbreviations and use of capitals. Add writing of dates and the abbreviations, Mr., Mrs., St., Dr., Cal.

Teach in review the capitals used in the First Grade, adding names of places and people, and the first word in a line of poetry.

In punctuation review period and question-mark. Correct com-

mon errors in capitalizing, spelling, and punctuating. Observe the use of quotation-marks and the comma as met with in simple constructions. For correct use depend much upon example and imitation.

Notice plurals of nouns, regular and irregular; some of the common contractions; as, don't, didn't, etc. This should be by observation of these forms and confined chiefly to such words as the children meet in their reading-lessons. After observation place correct forms on the blackboard for reference.

Watch the children carefully in order to determine what are the common errors, and give such work in the use of correct forms as will eradicate them. "Had better," "had went," "I done," "It's me," "I seen," "Have came," "going to do," and such other common errors may be eradicated in this manner. A good way to correct such errors is to put sentences on the board involving the use of the word. Teach the correct use, by means of imitation and use in elliptical sentences, of am, is, are; was, were; see, saw; give, gave; come, came; go, went; and a few others daily met with. Correct in speech words often misused; as, bring and take; teach and learn, etc. Be watchful of common mistakes in words of same or similar sounds; as, to, too, two; hear, here; hole, whole, etc.

WORD TRAINING.—At the beginning of the year observe and test the vocabulary of the children as to range and command. Use means to strengthen deficiencies. (See First Grade.)

Give other exercises, chiefly oral, suitable for this grade, teacher to record results upon blackboard. Supply opposites of easy words, as, good, little, true, careful. Pupils may suggest words for others to supply.

Words not opposites made from others; as, sweet, sweeter, etc. The object is not to memorize a few instances, but to lead to observation and thinking in this direction.

CHOICE OF WORDS.—Develop the notion of discrimination by giving the child every opportunity to supply a better word.

Toward the latter part of the year, bring out by conversation

and illustration some differences in a few words of similar meaning; as, a large man, a great man, etc.; the precise word applicable; as, tall or high to "man."

Give a few prepositions; as, walks in the room, walks into the room, etc.

Defining in this grade should consist in placing a word in proper group relation, or correctly using it in a sentence.

SENTENCE TRAINING.—Extend work of the preceding grade. Proceed systematically. Have the work largely oral. Do not avoid the use of declamatory and interrogatory in describing sentences. These terms are not any more difficult than "telling" and "question." Give much exercise in forming sentences, oral and written, from a given word or suggested idea. Change statements to questions, questions to statements. Call for original simple problems in number work. (See Arithmetic course.)

CONNECTED SENTENCES.—(See First Grade.) A notion of sentence grouping can be given by observing, in written work, whenever two or more sentences should join company.

WRITTEN WORK.—Written reproductions of familiar stories. Original work from pictures shown, or sketch on the blackboard, in relating personal happenings, in describing personal observations, or in connection with the work in Geography or History.

There should be a recitation on some form of written work each day. This should bring out a discussion of correct use and the best way of expressing the thought. Require only short sentences, and not more on a single topic than pupils can use well. In the original work, however, *value independent thinking, and do not repress individuality by rigorous criticism.*

At the close of this year's work pupils should be able to use a simple sentence correctly, and be able to express themselves connectedly on a familiar topic to the extent of three or four simple sentences. Do not try to accomplish too much in this grade, but rather to do well what is done. The first two years are very important in laying a firm foundation for future work.

THIRD GRADE.

State Lessons in Language in the hands of the pupils. Lessons 1-40, inclusive. Use these lessons as may seem necessary, varying the order and supplementing as needed to review and fix points touched upon in preceding grade work.

MODES OF EXPRESSION.—In Oral Reproduction, pay increased attention to orderly movement and holding to the main thought. Have pupils talk or speak before class on some subject. The language training of this grade should deal with the whole body of school work. Correlate the work closely with the work in History, Literature, Geography, and Nature Study. Aim at ease and fluency within the limits of the child's ideas and vocabulary, but remember that ease and fluency demand ideas worth expressing. Give written exercises, founded on the oral work. These should follow the oral work closely, but do not expect the written work to keep pace with the oral. In written work aim to secure habitual accuracy in form.

GRAPHIC ILLUSTRATION.—Encourage the children to illustrate their stories and descriptions. Use pictures as subjects for conversation.

STORIES AND POEMS.—Continue the use of the stories indicated under History and Literature. The biographies indicated under History will prove especially valuable. Memorize selections as indicated, and have them recited facing the class.

In this grade begin to read from books indicated in the Home Reading Lists, with a view to interesting the pupils in good literature and to encouraging them to read for themselves from good books suited to their age.

SPECIAL FORMS.—Review the capitals and the punctuation needful in written work. Lead by easy induction to some notion why these forms are used; as, words are capitalized when important by nature or position; punctuation is used to mark a pause in the

thought, etc. In addition to the *Lessons in Language* work, give short dictations to train in correct use of capitals and marks of punctuation, common contractions, and forms of speech often misused. Add the apostrophe and possessive plural, by observation.

Continue the teaching of the verb forms as in previous grades, adding a few more common ones to the list. Try to eliminate such common errors as "going to," "have got," "raised" and teach the proper use of such verbs as tore, catch, drink, sit, and go. Do not enter into many explanations; depend almost wholly on imitation and the formation of habits. Carry this work over into the Fifth Grade. Teach, incidentally, the use of the common pronouns, such as my, mine, I, me; he, his, him; she, her; we, ours, us; you, your; it, its; and they, theirs, them. Do not attempt to explain *why* we use the pronouns as we do. Let the teaching be wholly through the medium of well-selected sentences, using correct models only, and let the children learn their proper use by imitation and repetition. Do not give pupils examples of false syntax to correct.

Teach how to copy poetry, to write the days of the week, the months of the year, names of streets and cities, and the names of the national holidays. Teach such abbreviations as A. M., P. M., P. O., Ave., St., cts., doz., No., U. S., and Co.

WORD TRAINING.—Review and extend the Second Grade work. Continue training in the choice of words. Continue simple discriminations, as, much, many; few, less; this, that; love, like, etc. Let defining in this grade continue to be largely the proper placing and use of a word.

SENTENCE TRAINING.—Extend work of Second Grade. Add imperative sentence. Give series of words to form into sentences. Call attention to different idioms, as, Grass grows, Grass is growing; The day is cold, It is a cold day.

CONNECTED SENTENCES.—Toward the latter part of the year notice the grouping into paragraphs in the readers, and develop, by observation and induction, why the sentences are grouped together. To reinforce the idea further, note stanzas in poems and give a few easy ones to express in prose.

COMPOSITION.—Composition in this grade will fall into the following classes:—

(a) Reproductions of stories and reading lessons. Give daily drill in the use and writing of sentences containing words used in the Reading or other grade work. Place on the board a few short sentences, with connected meaning, based on some lesson, and have the pupils join them to make a complete story. Carefully correct all common errors.

(b) Letter writing. Each term have pupils write a number of very simple letters, either dictated or original, teaching form, heading, body, sub- and superscription. Correct compositions and letters and have the pupils rewrite in proper form.

(c) Composition on subjects assigned. Let these subjects be familiar and interesting, arising from the school work or home interests of the child. By the close of the year pupils should be able to write at least four or five simple sentences of connected meaning in a paragraph.

FOURTH GRADE.

State Lessons in Language in the hands of the pupil. Lessons 41-80, inclusive. Use these lessons as needed, taking up and continuing certain subjects and supplementing as the character and the development of the class requires. Teachers will get the best results from this work by grouping the lessons about the different subjects; as Plurals,—lessons 41, 43, and 48, etc.

MODES OF EXPRESSION.—Oral. Freed more and more from specific exercises, the oral work ranges over the widening field of school studies. Give opportunity in every subject for talks on a topic, calling for more than single-sentence expression. Insist upon clearness in statement and definiteness in bringing out the point. Work for ease in expression and the ability to make clear and accurate statements as to what is seen or read. The written work, while more confined to exercises than the oral, should seek freedom in many short original essays on paragraph subjects, that is, subjects limited to one phase.

Nature Study, Health Lessons, Geography, Literature, and History offer good opportunities for oral work, and the work in History is particularly valuable for written work. Correlate the Language work closely with the other school subjects.

STORIES AND POEMS.—See courses in Reading and Literature, and in History. Memorize selections as indicated, and have them recited facing the class. Tell few of the stories, but have pupils read silently and reproduce the thought orally or in writing. This latter should receive special attention.

SPECIAL FORMS.—For correct use of capitals, and punctuation, especially quotation marks, give dictation exercises of short but model paragraphs. Be sure that pupils can use forms of the personal pronouns correctly in sentences.

Continue to notice the common errors of speech, as indicated under previous grades, and to eradicate them by proper exercises. Do not give pupils examples of false syntax to correct.

Teach the use of hyphen, dash, caret, possessives, and contracted forms, and continue to teach abbreviations as met with in connection with other work.

WORD TRAINING.—Wider reading brings the pupil in contact with new words. The object is to help him assimilate them. Encourage pupils to keep lists of new words which they have met in reading. Frequently call for the new words, converse about them, and illustrate.

Bring into knowledge some of the more common affixes, but confine this work rigidly to helpful use in determining the meaning of words as they arise.

CHOICE OF WORDS.—In oral and written work, place some emphasis upon the discrimination between words often misused; as, want, wish; funny, strange; many, much; etc. Continue and extend the work begun in previous grades.

Keep up observation upon words, and as opportunity arises call attention to,—

(a) Different meanings of same word as in different part of speech.

(b) Different meanings in common application; as, bright, fine.

(c) Especially words used in a figurative sense; as, The fountain played. Ask for sentences illustrating different meanings and uses of the same word. Always give children chances to use a better word.

SENTENCE TRAINING.—Continue observations and induction, as indicated under Third Grade work. Distinguish declarative, interrogative and exclamatory sentences, construct examples of each, and write sentences expressing past, present and future time.

CONNECTED SENTENCES.—The written work leads towards the paragraph (see Third Grade). Commence to call attention to the progress of the thought or action from the beginning to the end of a reading-lesson or a simple poem. Observe how some leading idea is brought out.

COMPOSITION.—Special attention to letter-writing and paragraph essays. Frequent paragraph essays on the blackboard for discussion and correction. Devote at least one period per week to composition work and letter-writing. In composition work occasionally give subjects which appeal to the imagination, as A Letter from a Mother Bird to a Boy; but in doing so use great care not to expect such work unless the child is known to have some definite ideas on the subject, gotten during the oral work. Good expression, either oral or written, can only follow the possession of definite ideas.

By the close of the Second Term, pupils while writing should be able to capitalize and punctuate, including the proper use of quotation-marks. They should also be able to separate a small group of sentences into two paragraphs.

FIFTH GRADE.

For outline of work for each Term see the following. Throughout the year concentrate the work along the following lines:—

EXPRESSION, READING AND POEMS.—Continue oral and written

expression as indicated under Fourth Grade. Give pupils easy subjects to look up and require simple reports. Have the pupils talk about books read (Home Reading), the characters in the books which they admire or dislike, and why. Bring out the free and sincere expression of the pupils; likes and dislikes; what they think of some character, event, or occasionally of some description. Demand clear statements. Avoid long, loose sentences. Criticise intelligently both oral and written work.

From this on, in this work and in the study of poems, lead toward ethical sentiment and emotion, kindness to animals, consideration for the rights of others, love of home and country, admiration for heroic actions, etc.

Much attention is to be paid throughout this year to the mechanics of good composition, viz., to the use of capitals, to proper punctuation, to paragraphing, to correct spelling, and to reasonably good penmanship. Class compositions should not be copied—the first draft should be allowed to stand. Poems and prose should be copied from dictation, and proper punctuation and capitalization secured. Use the work in other studies as a basis for the greater part of the composition work.

Letter-writing and composition work are to be continued throughout the year.

FALL TERM.

State Lessons in Language in the hands of the pupils. Review work of the preceding year to such an extent as may seem necessary, following the outline for Fourth Grade, and continue to use the text-book and the composition lessons up to page 89, lesson 8.

SPECIAL FORMS.—Continue the work as indicated under preceding grades. Pay special attention to punctuation, use of quotation-marks, possessives, contracted forms, and common abbreviations. Study a number of common irregular verbs, such as blow, come, choose, fly, and throw. Also study a number of nouns which form their plurals irregularly; as, city, man, tooth, mouse, and wife. Do this by examples, using only words met with in reading.

The correct use of personal pronouns, of this and that, sit and set, lay and lie, go and went, come and came, etc., should be fairly well assured by the close of the year.

WORD TRAINING.—Begin the teaching of how to use the dictionary, using Webster's *Academic Dictionary*. This book is not on the *required* list, and its purchase is at present optional, but pupils should be *recommended* to purchase copies of the book. In connection with instruction as to its use, begin to teach pupils how to discriminate between,—

- (a) Two meanings of the same word.
- (b) The word and its nearest synonym.
- (c) The literal and the figurative use of a word.

This will require explanation and observation of words from texts read and studied. It should be done only so fast as pupils appear to grasp the work, and will need to be continued as a part of the study of Literature throughout the Grammar School course.

Do not allow pupils habitually to define one word by merely giving an other.

Extend the exercises in Choice of Words as indicated for Fourth Grade, particularly synonyms, and the objective and the subjective meanings of words in common use; as, The house was moved to the next block; The man was moved to tears. Also bring into knowledge and use some of the more common prefixes and suffixes, but confine this work to helpful use in determining the meaning of words as they arise.

PARAGRAPHING.—Develop the paragraph by further study of models. (See Fourth Grade.) Write paragraphs from given topic sentences. In paragraphic essays on the blackboard give special attention to proper sentence inclusion and connection.

COMPOSITION.—Compositions or letters at least once a week. Keep these easily within the range of the pupils' interest and ability. Aim at a thoroughness based on understanding. The composition work of this year should involve several paragraphs. This

calls for increasing power in the placing together of thought in relation to some subject. This is a critical stage. Do not lose the expression-impulse by too great haste or by strenuous criticism. The preparatory steps are,—

(a) Continue observation of development of the subject through successive paragraphs in reading lessons and poems.

(b) Write from outline analysis prepared by teacher. (See *Lessons in Language*, pp. 83-88.)

(c) Pupils to make outline of topics from familiar lessons and poems of this or preceding grades, selecting only subjects possessing distinct logical divisions. In this grade aid and encourage the pupils to think out an order of points before speaking or writing, and insist upon having them written out at the head of the essay. Do not attempt too difficult work. Choose subjects from the whole field of study, but it is vital that they should appeal to the pupils' interest. Sometimes let pupils suggest subjects. At times give a choice of subjects.

REFERENCES.—Teachers of this grade will find much valuable help in Frazee's *Lessons in Language Work* (Whitaker, Ray, 50c.). This book contains excellent material to be used by Fifth and Sixth Grade teachers.

SPRING TERM.

State Revised English Grammar in the hands of the pupils. Study lessons 1-23 inclusive, omitting lesson 11. Continue and extend the work as outlined for the Fall Term, substituting the work in the Grammar for that in the *Lessons in Language*. Drill on irregular nouns, and the proper use of pronouns and commonly misused verbs.

Have the letter-writing of this term take the form of letters of invitation and acceptance, and an application for a position. Use only simple forms.

REFERENCES.—Consult Frazee, *Lessons in Language Work*, as indicated under Fall Term.

SIXTH GRADE.

State Revised English Grammar in the hands of the pupils. During the year study lessons 1-24, 27-29, 33-36, 45-46, 50-51, 54, 57, 63, 67-68, 70, 71 (for form only), 83-84, 97, 100 (so far as applicable for review), 101, 102, 105-106, 113, 183-184. Plan the work so as to complete approximately half of it each term. The work of the year is so closely correlated that it is difficult to make an exact division.

Note the lines of work indicated by the selected lessons, and supplement when necessary to secure thoroughness. (See also under different heads as given later.) Write down the subjects of these lessons on a sheet of paper, and then group them, in teaching, about certain topics.

The chief work of this grade must still be drill in the use of good English,—not technical grammar. The work of the Fourth and Fifth Grades should be read over carefully, and the suggestions kept in mind. Try to carry out the line of work begun there, and secure accuracy and reasonable facility in the use of simple English to express clear ideas which pupils have gained from some other study or from some outdoor experience.

READING AND POEMS.—In the treatment of poetry follow out the lines of work and methods suggested in lessons 7, 45, 46, 57, 63, 70 (Form), 97 (Thought Study).

From this grade on, lead toward a closer study of poetry. This work has other aims than those usually in view with prose. The imagination must be quickened to picture the situations and scenes. The emotions must be enlisted. Poetic language,—its use of figures, its finer use of words, its method of suggestion—must gradually grow familiar to the pupils. In no other way can as keen appreciation be developed. Such study should never fail to interest. Occasionally read a poem to the pupils without making a lesson of it, as indicated under Selections to be Read to Pupils.

Have reports on books read, as indicated under work of previous grades.

SPECIAL FORMS.—Secure correct usage. Make use of such State Grammar Lessons as may be applicable. Use dictation exercises freely.

Following plan of lesson 24, discover the helping words, *can*, *could*, *may*, *might*, *shall*, *should*, *do*, and *did*.

Teach the principal parts of *bite*, *break*, *do*, *drink*, *drive*, *eat*, *give*, *go*, *know*, *lie* (*recline*), *ring*, *rise*, *run*, *see*, *sing*, *strike*, *take*, and *write*, and review those previously learned.

Develop, by observation and use, that these helpers are used with the first form, or present, never with the second form, or past, and never *alone* with the third form, or past participle.

WORD TRAINING.—Secure the intelligent use of the dictionary; continue the training indicated under Fifth Grade. In synonym-work it is sufficient to discriminate between a word and its nearest synonym.

Teach use of

(a) Suffixes—*er*, (noun), *er* (adj.), *ness*, *ship*, *ful*, *less*, *est*, *ly*.

(b) Prefixes—*mis*, *in*, *un*.

Teach these by induction if not already known from preceding grade work, and observe their applications. A few additional ones may be learned in the same manner.

SENTENCE TRAINING.—Study the simple sentence. As a method use questions that require in reply a perception of the logical relations. For material, use sentences as they occur in reading lessons, or sentences selected for drill to illustrate certain relations.

Increase the difficulties gradually by using longer sentences and inverted construction. This work should be thoroughly and systematically done, covering every possible relation within the simple sentence. Keep in view that the object is insight into relations—not knowledge of names.

In correcting compositions help pupils to good use of the forms of sentences they are beginning to make. Give special attention to arrangement for clearness.

PARAGRAPHING.—Occasional examination of an excellent model paragraph in reading-book or literature. Continue the paragraph essay upon the blackboard as a frequent exercise. (See Fifth Grade suggestion.)

COMPOSITION.—Continue oral work on lines of the preceding grade. In written work, place paragraph essays on the blackboard for examination of errors and bettering of sentence structure and connection. Occasional writing of business letters, invitations, and applications for positions. Use, as far as needful, the lines suggested for Fifth Grade, but demand increasingly good work. Frequently require a preparatory outline of a proposed essay. Discuss these outlines for better arrangement of thought. Give at least one recitation in five to composition work.

Teachers of this grade should consult Frazee's *Lessons in Language Work* (Whitaker, Ray, 50c.), which contains much supplemental work and excellent suggestions on Language teaching.

SEVENTH GRADE.

State Revised English Grammar in the hands of the pupils. During this year study the following:—

Review lessons 14-24, 27-29, 50, and 54, connecting them with the advanced work as will be indicated later, spending only such time on the review part as may be necessary to prepare the way for the advanced work. Study the subjects of Part I which were omitted in the Sixth Grade. Use the drill lessons as may seem desirable to fix the subjects studied. In Part II study lessons 101-138, 146-148, 158-159, 161, 163, 185-189, and 209-211. Teach lesson 148 with 29, 158 and 163 with 50, 159 with 54. Lessons 185-189 and 246-254 in connection with the work in Literature. Write down the subjects of these lessons on a sheet of paper, and then, in teaching, group them about certain topics. Plan the work so as to cover approximately half of it during each term.

In the study of analysis and parsing be very careful to use the work as a tool and not as an end in itself. (See Introduction to this course.) Use the tool with moderation and intelligence. Be-

ware of memorizing or mechanical work. The good way to teach analysis or parsing is to use the process frequently as a means of explaining a sentence or a thought which is not understood. The process can be used in studying Literature as well as Grammar.

READING AND POEMS.—(See suggestions under Sixth Grade and the course in Reading and Literature.)

SPECIAL FORMS.—Review and extend the work of Sixth Grade with auxiliary words and principal parts of verbs. Find that the use of have, had, be, been, is confined to the third form, or past participle, and carry with such forms other auxiliaries, as can, could, must, etc. Use as in lesson 27, lessons 209-211. Use dictation exercises freely.

WORD TRAINING.—Review the line of work indicated for the Sixth Grade. Continue the training in the intelligent use of the dictionary, as indicated under preceding grades. Do not refer pupils to the dictionary for every new word. Reason out the meaning of many words by a study of the sentence.

Review the suffixes and the prefixes studied under Sixth Grade, and extend the work to include such suffixes and prefixes as the following:—

(a) Suffixes—or, able, ish, en.

(b) Prefixes—trans, post, anti, hemi, over, under, pre, ex, un, re. Teach these largely by induction and observation, and use the knowledge of them to work out the meaning of words met with in the Literature work. To memorize certain suffixes and prefixes must not be made an end in itself; the object is to get a new tool with which to open up Literature. Do not give drill on Latin roots, as such work is of very small educational value. The place, for such work is in the High School, and not in the Grammar School. There is no objection to calling the attention of pupils to the similarity of such words as dignify, dignity, and indignity, and to telling them that it is due to the fact that these words are derived from an old Latin word; but to have pupils commit to memory the Latin word *Dignus* and its derivations is not to be required.

CHOICE OF WORDS.—Extend the study of synonyms, using only words met with in the Language or Literature work, so as to lead pupils to an intelligent discrimination between commonly used words. Lessons 442, 447, and 452 of the State Speller, pages 68-70 and 80-82 of Frazee's *Lessons in Language Work* will offer suggestions to teachers.

CHOICE OF WORDS.—In criticising composition work attend more and more to the exact use of words. As occasion arises call attention to well-chosen words. Several times during the year give an exercise in supplying ellipses of exact and choice words in some selection from literature. Discuss the result.

SENTENCE TRAINING.—See material in State Grammar. In treating verbals and dependent clauses, emphasize their functions as parts of speech. Present the complex and the compound sentence as a development from the simple. Bring out thoroughly lessons 86-90, 93, 95, 96, supplementing and returning to review before the close of the year. To secure perception of clause relations question thoroughly upon the complex sentence. Under Sixth Grade see method and aim in dealing with simple sentence.

In criticising composition work have class correction of sentences. Put emphasis upon arrangement for clearness. Lead toward effective placing of thought or force. When met, call attention to well-constructed sentences. Note the different styles in Literature studied. Encourage pupils to suggest improvements in sentences they may find in current reading.

PARAGRAPHING.—Ask occasionally for topic sentence of paragraphs in reading, or topic sentence of stanza in poetry. Have at times an exercise of this character. In making outlines for compositions, have the topics of proposed paragraphs included. Note the paragraphing in the Literature read.

COMPOSITION.—The oral composition, or short talk, should be much used as a form of recitation in the various studies. Call for reports upon books read. Insist upon an orderly arrangement of

thought. Begin teaching pupils how to recite or speak from an outline of suggestive heads.

In written work, write occasional letters of a business character. Business forms in connection with the work in writing, using a "Business Forms" copy-book. Give at least one period in five to essay writing on assigned subjects. Keep well within the pupils' range of knowledge and experience, remembering always that there can be no good expression unless pupils have a good stock of clear-cut ideas to express. In this and the following grade, teachers should select a series of subjects, dealing with the work in Geography, History, or Literature. Some instruction should be given upon narrative and descriptive writing. Have narration of an incident and narration of personal experience involving more than a single incident. Such books as Carpenter's *South America* and *Asia* contain good examples of narration. In reading from these, attention should be called to the style used. Encourage the writing of short original stories, and descriptions of persons, buildings, and scenes from actual observation.

In composition work involving more than a paragraph or two, insist upon an outline of topics.

EIGHTH GRADE.

State Revised English Grammar in the hands of the pupils. During this year study the following:

FALL TERM.

Make a hasty review of nouns and pronouns, as given in Part II. Spend only so much time on this work as may be necessary to recall the subjects to mind. Two weeks should be sufficient. Begin at lesson 139 and take to lesson 184. Use the drill lessons to whatever extent may seem necessary, and study briefly lessons which have been studied in Seventh Grade. Composition lessons should be used as such. Use lessons 183-189 and 246-254 in connection with the work in Literature. Begin the use of sentence analysis as a tool, and give drill on parsing (see Spring Term).

SPRING TERM.

Begin at Verbs, lesson 191, and take to lesson 228. Stress should be laid upon the verb and its complements. Use the appendix for reference, but have the more commonly used Irregular Verbs learned. Also use lessons 229-245 as suggestions toward a thorough review and rounding off of the preceding work. In this grade give a thorough drill on sentence analysis, keeping in mind its use as a tool and not permitting the work to become mechanical. Progress from easy sentences to those of ordinary difficulty, but do not let the work degenerate into working out sentence puzzles, as such work is analogous to solving difficult problems in Partial Payments or Partnership. Such work provides good puzzles, but is of but small educational value compared with easier work. Better training can be given in Analysis and Arithmetic by keeping the work well within the pupils' reach. Also give thorough drill on parsing, but with the same cautions as those above. Use lessons 185-189 and 246-254 as may seem necessary in connection with the work in Literature.

BOTH TERMS.

LITERATURE STUDIES.—In studying each selection have pupils observe the locality of the action, the divisions of the narrative, the introduction of the characters, their description, introduction of scenery and its use, customs, and something of the humor. (See Course in Reading and Literature.)

Have talks and short essays on the characters. Prepare questions and call for work that will elicit original thought or investigation; as, With whom do you sympathize? With whom does the author prepare us to sympathize? Up to what point in the story does everything go well with any character? Complete or add to the story. What are the natural divisions of the story? The Literature of this grade gives many opportunities for variety of treatment.

SPECIAL FORMS.—Vigilant oversight, to confirm correct usage and strengthen weak points. (See outlines for previous grades.)

WORD TRAINING.—Extend the suggestions given under Seventh Grade. Use the suggestions given in the *Grammar*.

SENTENCE TRAINING.—By careful criticism and by observation of good models maintain steady progress in sentence use. (See Seventh Grade.) Call some attention to arrangement and choice of words for smoothness.

PARAGRAPH.—(See Seventh Grade.) Careful criticism of paragraphs in pupil's essays. Study of a few model paragraphs recognizing unity, coherence, and stress. Show by illustration from sentences that these are also the qualities of a good sentence.

COMPOSITION.—Continue oral work upon lines laid out for Seventh Grade. In written work have occasional letter-writing. At times, dictate the general idea and a few points of a proposed letter, the pupils taking notes. After writing out, compare and discuss. The composition subjects chosen from the school studies should require the pupils to re-arrange the material or summarize it from a somewhat different point of view from that in the source or sources from which it is drawn. Many subjects should be taken from the Literature or History studied and from subjects connected with books read. Keep originality in view.

See that the essays are more and more characterized by the qualities of a well-constructed sentence or paragraph; unity, or sticking to the subject; sequence, or logical arrangement; stress, or the bringing out of some distinct idea.

At the end of the eighth year pupils should use the English Language with accuracy and intelligence. The correct forms of words and sentences should have become a fixed habit, and pupils should be able to discriminate among the various meanings and uses of words and to write an abstract, composition, or letter that will be free from errors in spelling, punctuation, and capitalization.

3. REFERENCES.

The following books and articles are easily accessible and will be found very helpful by teachers of Language:—

Arnold, Sarah T. Waymarks for Teachers.

Crary, Agnes. English Teaching in the Lower Schools, *Educ. Rev.*, Vol. XIV, pp. 457-467 (Dec., 1897) Very good.

Hinsdale, B. A. *Teaching the Language Arts*.

Jacobi, Mary P. The Place of Language in the Curriculum of Education, in her book on *Primary Education*, pp. 62-120.

Maxwell, W. H. An Experiment in Correcting Compositions, *Educ. Rev.*, Vol. VII, pp. 240-247 (Mch., 1894) Very helpful article.

Shaw, Edw. R. Essentials of English Composition for Elementary Schools, *Proceedings N. E. A.*, 1898, pp. 87-94. Very good.

Thurber, Saml. Five Axioms in Composition Teaching, *School Rev.*, Vol. V, pp. 7-18 (Jan. 1897) Discusses the teaching of English. A very good article.

V. SPELLING AND WORD ANALYSIS.

1. INTRODUCTION.

Children learn to spell in one or more of four different ways:—

First—Through the eye, by seeing words written down and forming the habit of noticing and remembering the spelling of words met with. This method should receive much attention, as the habit thus formed is the basis of learning to spell correctly. It should be the only method during the First Year of school work, and should predominate throughout the Primary Grades.

Second—Through the ear, by hearing the words distinctly pronounced, and noticing the articulation, accent, component sounds, shape of the lips, etc. Beginning with the Second Grade, this method should receive increasing attention, and throughout the grades, there should be occasional rapid oral drill in spelling.

Third—Through voice, by pronouncing and sounding the words or syllables. Pupils who learn to spell only in this manner are usually slower spellers than those learning through the eye or ear.

Fourth—By combining the above with action of the arm muscles,—that is, looking at the word, pronouncing it, and then writing it down before a lasting impression is made. Those who learn only in this way are the slowest spellers. It is necessary for them that the brain centers of sight, hearing, speech, and muscular action for the arm and fingers, be brought into use and co-ordinated to form a lasting impression.

Most pupils use a combination of two or more of these methods, and the best results, considering a school as a whole, will be obtained by combining the different methods as indicated in the following.

In teaching Spelling, as in teaching a list of irregular verbs, there must be a large amount of memory drill. The spelling-book, with lessons to be learned by memory work, certainly has an important place, though it is not adapted to use in the lower grades. Words used in the reader and in literature studied should be used as a basis for spelling-lessons. In all grades from the Fourth to the Eighth, pupils should be required to keep blank-books for spelling. Five-cent blank-books, books of twenty-four pages and about seven by eight inches in size, will be all that is necessary. Words should be selected from lessons read, learned, written from dictation into these blank-books, and corrected. Once a week and once a month there should be a review of what has been learned. Deputies, in examining grades below those using the State Speller, will call for these books and give words from the lists they contain. Deputies will also use them to a certain extent in the Sixth to the Eighth Grades.

In the First Grade the work should be wholly written, and as far as possible give only such words as are spelled as they sound. During the latter part of the Second Grade oral spelling should begin, using phonetic spelling largely. In all grades up to the Eighth, the written spelling should predominate, but with increasing emphasis on oral spelling throughout the upper grades. Oral work should be given largely in the form of rapid review tests, and should not be used to any great extent below the Fifth Grade.

Special attention should be given to the separation of words into syllables, the use of the hyphen in compound words, and the marking of vowels. Words commonly misspelled should be listed and used for review. Words which individual pupils have difficulty in spelling should be kept on individual lists and learned. The last page or two of the blank-book should be reserved for such a list. From time to time give easy drill on the construction of sentences involving the use and the definition of a word, but such work should be largely oral. Pupils should know the meaning of words spelled. Teach the pupils the simple rules for spelling, illustrating by lists of words.

Correlate the work closely with Language, Reading, and Literature. From time to time, as indicated under the Language Course, give drill in the choice of words, synonyms, and use of suffixes and prefixes. The Speller gives sufficient material. Do not make this work too technical, and do not teach Latin and Greek roots. Use such aids as have just been indicated, but remember that the teaching of Spelling is largely memory work.

2. OUTLINE OF INSTRUCTION.

FIRST GRADE.

Written work only during this year. Select words from the Reader. Give drill in copying to fix forms. Also give drill in writing short, easy sentences, involving the use of some of the words marked to be learned.

The teaching of Writing and Spelling should begin simultaneously with that of Reading. Through the first year, there should be no attempt at oral spelling, and the calling of letters by their names should be carefully avoided; for, until the pupils have become strong in the use of the sounds of the letters, their names prove stumbling-blocks in the mastery of words, and cause confusion.

Spelling is taught simply by copying a word or a sentence, until the child is able to reproduce it without a copy.

Also give drill in writing from dictation short, easy sentences involving the correct use of such words as do, done, bring, saw, seen, him, me, I, is, are, break, and broke.

Toward the close of the year give drill in written spelling from words pronounced phonetically by the teacher, pupils watching the teacher's lips. (See courses in Language, and Reading and Literature.)

SECOND GRADE.

Continue work as indicated for First Grade. Select spelling from the Reader used. Spell the words at the head of each lesson,

phonetically in part, gradually changing to regular spelling during the second half of the year. Teachers should give dictation phonetically, pupils watching the teacher's lips. Require neat work in written Spelling. Dictate sentences involving correct use of verbs and pronouns. Oral spelling should be taken up during the last quarter of the year. It requires but little drill, and should receive but little attention. Valuable points in the presentation of sounds to children can be found in "Suggestions to Teachers" in the back part of Deane's *Phonetic Reader* (The Morse Co.), or in Van Liew and Lucas's *Phonics and Reading* (Pub. School Pub. Co.).

(See Courses in Language, and Reading and Literature.)

THIRD GRADE.

Select words from the beginning and end of the reading-lessons. Begin to introduce words from other lessons. Give drill in the division of syllables and the marking of accents. Continue phonic drill, and mark the sound of one vowel in a word. Give drill in writing sentences from dictation, noticing use of capitals, punctuation, and spelling. Dictate sentences involving the correct use of verbs and pronouns. Give dictation exercises to correct common errors. Make a list of commonly misspelled words and give drill on them. (See suggestions under Language, and Reading and Literature Courses.)

FOURTH GRADE.

Select from words at the beginning and the end of the Third Reader, so long as used in this grade. Select words from Literature read, and from other lessons. Begin keeping a blank-book for spelling (see Introduction), and mark ten to fifteen words a day to be learned. Work out their definitions from the context or by questions. The next day, or later in the same day, dictate these and have pupils write them down in their blank-books, with definitions, and then exchange with other pupils for correction. Have all written work done neatly. Correct spelling in the definition as in the

word. Once a week and once a month give oral review drill. On review days omit advanced work.

Continue drill in the division of syllables, and the marking of vowels and accents. Teach the use of the hyphen in compound words, as met with in the reading lessons.

In dictating prose and poetry notice spelling as well as punctuation and capitals. (See suggestions under Language Course.)

FIFTH GRADE.

Continue the work as begun in the Fourth Grade. Introduce the use of the dictionary to find the meaning and the pronunciation of words. Give drill on how to find words rapidly and on how to pronounce them from the marking. Continue to use the blank-book for spelling, as in the Fourth Grade. Select twenty words a day from reading or literature studied, or from time to time from some other subject, as the names of the States from Geography. Dictate, define, and correct these, and have weekly and monthly oral reviews, as indicated under Fourth Grade. Give drill in the spelling of irregular verbs and nouns forming their plurals irregularly. (See course in Language for further suggestions.)

SIXTH GRADE.

FALL TERM.

State Speller, lessons 1-50. (See directions for both terms.)

SPRING TERM.

State Speller, lessons 51-104. (See directions for both terms.)

BOTH TERMS.

The foregoing assignment of work gives ten lessons a month. This work can be done in about two or three days per week, leaving one or two days for Spelling in connection with the Reading and Literature, and one day for review work.

In such lessons as the written part of lesson 14-16 and others of the same type do most of the work as quick oral work in class, the definitions having been looked up and the work studied previously. A few of the exercises may be written out, but all need not be. In the oral work the teacher has a good opportunity to see how much is really known as to the differences in meaning, correlating the work with the Choice of Words indicated under Language. Have the pupils give orally the definitions of the words, and sentences showing their use. Such oral work gives good drill.

Omit entirely the written part of lessons of the 17-24 type, and omit filling out blanks, except orally in lessons of the 9-13 type. A few of these may be used as Language work, but only a few need be so used.

Continue the use of the blank-book, for Spelling, as indicated above. Select an average of twenty words a week from the Reading or Literature studied. Have weekly and monthly reviews on the words from the Reading or Literature and the Speller.

Continue the use of the dictionary but train pupils to find the meaning of words from the context. Teach pupils to look up words at "the moment of awakened curiosity." Look up the meaning of words marked (*).

Consult the Language Course and correlate the suggestions found there with the work on Spelling.

SEVENTH GRADE.

FALL TERM.

State Speller, lessons 105-156. (See directions for both terms.)

SPRING TERM.

State Speller, lessons 157-185, omitting lessons 180-181, 202-204, 228, and 233-234; use lessons 186-201, 205-227, and 229-232 only for class drill in distinct articulation; omit lessons 235-249; and study lessons 250-270. (See directions for both terms.)

BOTH TERMS.

See suggestions given under Sixth Grade. Follow the directions as to use of certain lessons given there. Also see Language Course and correlate the suggestions found there with the work as found in the Speller and in Literature.

Teachers should consult pages 168-192 for suggestions as to elementary work in word analysis.

EIGHTH GRADE.

FALL TERM.

State Speller, lessons 271-330. Besides spelling the words in lessons 271-298, give special drill on the distinct articulation of them.

SPRING TERM.

State Speller, lessons 331-380, omitting 352-359 and 366-372, and look up 345-347 only.

BOTH TERMS.

See suggestions under Sixth Grade. Also see Language Course and correlate with the work as found in the Speller and in Literature.

Teachers should consult pages 168-192 for suggestions as to elementary work in word analysis.

VI. ARITHMETIC.

1. INTRODUCTION.

The foundation for arithmetical work is laid during the first four years of school work, though Arithmetic, as a regular class study, should not be begun during the first school year. At the age of six the reasoning powers of the child have scarcely begun to develop, and to attempt to force the functioning of powers before the period of their normal development only leads to later weakness. While there is much to be said against a too rigid drill on numbers during the first two years of school life, there is also much to be said against an *entire* omission of a subject which, more than any other, stands for clear and definite thinking, and which is so useful in the child's attempts to interpret Nature. While there should be no definite daily recitation time for number work during the first year, and while the work during the second year should not be so heavy nor so formal as during the third year, the teacher should still keep prominently before her in both First and Second Grades, the idea of laying a good foundation for number work, and should use the many opportunities of the school to assist her in so doing. The section on "Related Number Work" will offer many suggestions as to how to do such work,—as to how to utilize the child's life-experiences to cause such simple numbers as 3, 6, $\frac{1}{2}$, $\frac{1}{3}$, etc., to be used as expressions of quantitative relations which he has come to know as he came to know red, or sour, or cold.

Two aspects of number are presented to the child,—the serial as given in counting by units, which involves addition and subtraction, and the ratio aspect, as given in the "times" idea, which involves multiplication, division, and fractions. The pupil must be

introduced to the work by means of objects and quantitative measurings, but, since number is a mental process, objects should be used with judgment and caution and should be discontinued when the process along any particular line is started. Whenever the child can think the symbol easily he is ready to dispense with concrete work.

The serial and the ratio idea, *counting* and *measuring*, should go hand in hand. Some things, as four marbles or six boys, must be counted; other things, as the length of a leaf, or the width of a board, must be measured. Measuring will create more interest in numerical work than can be obtained from counting devices. It will increase the material at the teacher's command, and enable her to introduce calculations as incidental to counting, comparing, measuring, grouping, and expressing relations. Numerical ideas are ideas of the relations of quantities or magnitudes, and must be taught through a comparison of them. The child must be taught first the idea of greater or less, which involves addition and subtraction; then the idea of how many times greater or less, which involves multiplication, division and fractions; assuming any quantity as a basis involves the principle of ratio and proportion, and, if 100 is taken as the basis, the principle of percentage is used. As these latter notions of exact measurement are by no means easy for the child to comprehend they should be introduced slowly.

It clearly follows from the foregoing that numerical ideas are best developed by using objects that can be measured and by actually measuring them. Even in counting, the fixed unit plan,—that is, counting only by single things or objects,—should be avoided. Exact estimates of quantity are made by units of different values, which are themselves exactly measured. Thus we may measure distance by using the yard-unit, itself made up of three foot-units; or by using the foot-unit, itself made up of twelve inch-units. Hence in teaching, let the teacher make liberal use of objects of the same kind having different sizes in exact relation to one another, and of actual measurings, as with the foot rule, six-inch rule, pint measure, quart measure, etc.

Caution is further made that the unity of every number as well as its multiplicity must be brought out,—that is, that 3, for

example, is a *unity* of three units, and not the third thing in a series. To accomplish this, do not proceed from one number to another when teaching numbers by the addition of one to the next preceding, but give the child the new number and help him to discover its combinations. Thus, having taught him the number 4, give him 8 things and lead him to discover by his own investigations what combinations make 8, and what relation it bears to other numbers already known.

The work in fractions should be developed along with the work in multiplication and division, paralleling it; *not*, therefore, alone and chiefly by the division of single things into parts, *but* rather by the relations of groups and measures to others of like kind.

Since the purpose of Arithmetic is to develop clear-cut numerical ideas, mental work should always, from first to last, be emphasized above written work. Throughout the course there should be frequent short mental drills. A few minutes given to oral work *each day*, the work being based on that of the grade, will give much better results than the same amount of time concentrated into one period a week.

Throughout the work, teachers should give a large number and a great variety of practical problems which will apply the principles learned. Many of these should be solved mentally. In giving such problems care must be taken not to go beyond the common experiences of the class. The home and outdoor life of the children and the city life of San Francisco offer the best of opportunities for arithmetical work. The simpler operations of Arithmetic can be better illustrated by problems given on the spur of the moment and having a vital connection with the life of pupils and teacher than can be done by the problems usually found in Arithmetics. A fundamental defect of Arithmetics is the large number of *value* problems. These appeal to the sense of value in a way to which the child is often unable to respond, and cause Arithmetic to consist of memorizing instead of reasoning.

Teachers should not make the mistake of trying to cover too much ground or to solve too many problems. To secure the ability to do careful continuous thinking should be the aim of the work. Thirty minutes spent in solving a few problems, where each pupil

is required to think out each step in the solution by reason of the skillful questioning of the teacher, is worth much more in the development of arithmetical power than the same time spent in individual solution and explanation of twenty problems, assigned in rotation to be worked at the blackboard. A certain per cent. of the defective work in Arithmetic usually is due to unpedagogical methods in conducting the recitation.

Teachers should also not make the mistake of attempting too difficult problems. The basis of good arithmetical work lies in the accurate and rapid use of the four fundamental operations, both with whole numbers and fractions, and accuracy and rapidity in the use of these fundamentals can be obtained better by drill with small numbers than with large. There should be rapid drill work throughout every grade.

2. RELATED NUMBER WORK.

(FOR GRADES I AND II.)

To illustrate how the various forms of schoolroom administration, school work, and out-of-door games may be pressed into the service of number, there is reproduced below a pamphlet which was prepared by the primary teachers of Austin, Illinois, and which is here reproduced by the kind permission of the City Superintendent, Mr. Newell D. Gilbert. Dr. Dewey has called such work "Related Number Work," and has divided it into (1) Arithmetic, (2) Science, (3) Construction, and (4) Plays and Games. This outline is intended *only* to be suggestive of the abundant material close at the teacher's hand.

"I. ADMINISTRATION.

1 Attendance.

Pupils counted; by ones, by twos, by unequal addends.

Count and see how many boys present in row 1? how many girls? how many pupils? how many boys absent? how many girls? how many pupils?

How many present (absent) in rows 1 and 2? 2 and 3? etc. In rows 1, 2, and 3? etc. In the school?

How many boys belong in row 1? How many are here? How many must be away?

“2 *Distribution of Material, by rows or by classes, or both.*

A monitor comes to teacher for each row. How many sheets of paper, pairs of scissors, pencils, books, etc., do you need? Teacher hands him some. How many have you? Is that as many as you need? Do you need as many as that? How many more do you need? Return me all you do not need.

OR

Child goes to supply and counts out for himself, under teacher's eye, what he needs; encouraged to count not only by ones, but by twos and threes, or to count the unequal addends.

If practicable, appoint head monitor to take teacher's place in supervising distribution of material.

“3 *Collection of Material: similar to foregoing.*

Reading, etc.

Finding page by number. Finding line on the page or word in the line by number. Find a given word, on which drill is being given; find it again; again. How many times can you find it? Group words phonetically; by rhymes; etc. How many in each group?

Number involved in stories told, or the subject-matter of the reading lessons.

“II. SCIENCE.

1 *Weather Record.*

Days and dates,—find date by addition from day to day, Friday to Monday. Character of weather denoted by disks of colored paper or colored chalk,—number of clear, cloudy, rainy, etc. days in the week? In a month? Comparisons; averages. Prevailing winds,—how many days had we a west wind? Northwest? Southeast? South? etc. Which had we the most?

“2 *Time.*

Hours, half hours, quarter hours; 1-2, 1-4, 3-4 of 60 min. Counting by fives to 30; to 60. Products of 5 min. to 5×12 . Multiples of 5 min., plus 1, 2, 3, 4 min.

Making clock face. (See *Construction.*)

“3 *Observation Work.*

Studies of buds and leaves; of animals, etc.

“4 *Measurement.*

Children measure one another. Growth of twigs,—comparisons. Soils—definite amounts measured out by the children; loam, sand, etc., separated, measured, and compared. Weights—absorption of water by seeds,—elements of soil compared.

In connection with construction work. Learning the foot rule. Compare with 1 in., 2 in., 3 in., 4 in., 6 in., sticks. Compare these with each other. Stick-laying, using sticks of above lengths. Children determine aggregate and relative dimensions of figures laid; also study figures dictated for laying and determine sticks available and make requisition accordingly: so many 1 in., 2 in., etc. sticks. Teacher by questioning leads the children to see various combinations of sticks of different lengths that may be made in making the same figure.

“III. *CONSTRUCTION.*

1 *Ruling lines, squares, oblongs, to dictation and scale.*

Sheets for weather record. Wind charts,—thermometers, etc. Record sheets—score cards—for games. In all marking, children assist in any computations necessary to get total lengths and breadths, and effect of any allowance; e. g., laps in making boxes; for cover of a box compared with the box itself.

“2 *Related objects.*

Trays for paste. Boxes of various shapes and sizes for seeds, soil, pencils, crayon, and other collections and

material; for measures, cubic inch, eight cubic inches. Circle markers—1 in. by 6 in., divided into inches; 1-2 in. by 6 in., divided into 1-2 inches. Circles of colored paper for weather record. Clock dials on board. Draw with strings, making outer circle 12 in. in diameter, inner 10 in., on paper, with circle markers, making the outer 6 in., the inner 5 in. Envelopes, book-covers, etc. Mounting sheets.

“3 *Objects suggested by Literature or Reading.*

Wigwam, canoe, bow and arrows—Hiawatha; other objects in connection with Literature; cradle—Pilgrims; sled, etc.—Eskimos; log-house—Lincoln.

“IV. GAMES.

Note.—One large advantage of games is the opportunity to carry over the number notion and processes into the children's own field of activity, beyond the walls of the school-room and the immediate urgency of the teacher. Any game to which a score may be put can be *thus used*. Children should make and keep their own score-cards in such grades and games as make this practicable. Results should come under review of teacher. Hints as to rapid and easy combinations in making up scores should be freely given. The work given here is not fully elaborated, but has proved practicable.

“1 “*Five Little Chickadees.*”

Five children represent the chickadees. The others sing. As they sing, “One flew away and then there were four,” one chickadee flies to his seat. At the end of the second verse, “One flew away and then there were three,” another flies to his seat. This continues till, with the fifth verse, all have flown.

“2 *Going to Jerusalem.*

A small amount of number work is involved in this game. The children in a given row stand, one seat is raised, and the children march from places. When music

stops they run to seats, and the child who finds no seat is out of the game. This goes on until only one child is left.

“ 3 Bean Bag Game. No. 1.

Our bean bag board is twenty-eight inches long by fifteen inches wide, with one hole in the center measuring six inches in diameter. It has a support six inches high hinged on six inches from one end. We draw a line to show where the player shall stand, and advise holding all the bags with one arm and never taking the eye from the mark. At first we played with six bags, red, blue, yellow, green, orange, and violet, (standard colors), letting the child who played hold up those he succeeded in getting in the hole, while the other children told the colors of the bags and the number. Tell how many went in and many did not. How many in the hole, how many on the board, on the floor? Then give values to the positions:—

- a.* 1 for each bag in the hole.
- b.* 2 for each bag in the hole.
1 for each bag on the board.
- c.* 2 for each bag in the hole.
1 for each bag on the board.
1 off for each bag on the floor.

“ Bean Bag Game. No. 2.—Equipment.

a.—Board of convenient size—say, 18 in. by 30 in. In the upper right hand corner is to be cut a hole 6 in. in diameter; in the center, a 4 in. hole; in the lower right hand corner, an 8 in. hole.

b.—Bags—any number, not fewer than the pupils in a full row. These may be of various colors and arranged in sets.

c.—Score-sheets,—take ordinary drawing paper 6 in. by 9 in. Have the children rule these to scale, as follows: Lengthwise of the sheet, rule a space at the top, $1\frac{1}{2}$ in.

for a heading; a space $\frac{3}{4}$ in. wide for column numbers or letters; five $\frac{1}{2}$ -in. spaces for days of week; a $\frac{3}{4}$ -in. space below these for footings. Across these spaces, rule a column $2\frac{1}{2}$ or 3 in. wide for names of days, and as many narrower columns as there are rows of desks.

“ Play.

Divide among children of each row as many bags as there are children in the fullest row. Choose one pupil to throw all the bags for his row; or let each child of a row throw in turn. If any row has fewer pupils than other rows, let the child who makes the best throw, toss the extra bags.

“ Score.

The largest hole may count 5 points, the next largest 10, the smallest 20; or they may count 4, 2, 1, or 5, 3, 2 respectively. Appoint a score-keeper, who shall reckon result for each row, and announce it—the school confirming or correcting. Each child notes score in proper space on his score-sheet. Comparisons may be made, day by day, of the scores of the various rows. At the end of the week a summary for each row is made and further comparisons.

“ Bean Bag Game. No. 3.

The bags for this game are made 6 in. by 9 in.; one and a half pints of beans or corn are used for each bag.

In this game a section or row stands in straight or curved line according to room, with pupils 4 or 5 feet apart. The one at the head starts the bag down the line. It is tossed from one to the other until the foot is reached, when it is returned to the head in the same way. There may be two, three or more rounds for the bag. Each time it is returned to the head without being dropped it counts five or any number chosen. If three be the number of rounds and five the perfect number, the total tally will be fifteen. But if the bag be dropped, three or any chosen number is counted off, and the number of

times dropped deducts a corresponding number of threes from the total tally. Thus: Two drops means two threes or six off; 15 minus 6 equals 9.

The tally sheet in this room was made on paper 9 x 6 inches. Vertical lines were drawn $1\frac{1}{2}$ in. from each edge making the space 6 in. long. One inch from the top a horizontal line was drawn. Then vertical lines, beginning an inch from the first vertical line, were drawn an inch apart until the space was divided into six spaces each an inch wide, one space for each row. Beginning half an inch below the top line, horizontal lines were drawn half an inch apart until five spaces were made, one for each day in the week. Each child makes and keeps his own sheet. Each space receives the tally for the row to which it is allotted, and in the part corresponding to the day, 1st, 2d, 3d, etc. At the end of the week the footing of tallies may be made and results for rows compared.

“4 *Ring-toss.*

This game has three sticks of different heights, fastened upon a board and arranged so that the first and shortest stick is nearest the player. The board is $2\frac{1}{2}$ by 1 ft, and the sticks are 10, 15, and 20 in. in height.

Give each stick a value, varied according to the height of the stick, as, 3, 7, 10. The rings are 5 in. in diameter. Each player holds 3, 4, 5 rings, as one may choose, and tosses them. Each child keeps a record for every player. Count up the number gained by each child, arrange in rows as stated and add up the number gained by each row. Add up the total of all rows.

This game may be varied so as not to grow monotonous. Change the value of the sticks, number of rings,—chances. Different sizes of rings may also be used, giving the highest value to the smallest ring. Failure to throw a ring over stick may be counted against the player—subtraction. This game brings in much addition, and subtraction.

"5 Hop Scotch."

Draw diagram on the ground or floor. It is designated for an outdoor game. Various diagrams are used beside the one given here.

Arrange the school in two divisions so that one side may play against the other. First pupil in right hand row takes his place at the point designated in the diagram by the arrow. Standing on one foot he aims to flip the disk into square 1. If it stops in 1 this scores 10. The disk must be clear of the lines inside the square. Hop into square 1 and flip the disk into 2. If entered it adds 10 to the points made, if missed it takes 10 away. The value of 3 is 5. If entered successfully, 5 more points are added, if missed 1-5 of those already made are taken away. The values of 4, 5, 6, and 7 are each 5. Each one entered, 5 is gained; each one missed, 5 is taken away. If 8 is entered successfully the points to his credit are multiplied by 2. If 8 is missed, the total is divided by 2. This will be the final number of points to his credit.

Each child carries a card arranged in two columns. The same card is carried from day to day, and when all on both sides have played, totals are compared. Adding and subtracting by tens as well as units."

3. OUTLINE OF INSTRUCTION.

FIRST GRADE.

Teach notions of greater and less, larger and smaller, longer and shorter, and the like; then gradually, and as soon as the child is ready for it, how much greater and less, how much longer and how much shorter, and so on. Consult Speer's *Primary Arithmetic for Teachers*. Give much work in sense training, as indicated in Speer's book.

The main purpose this year is not to fix in memory a certain number of combinations and separations in a narrow field, such as is involved in "knowing all about numbers to 10" by the Grube method, but rather to awaken sense-perception and give a broad, not a narrow, view of quantitative relations. Hence the importance of doing much of the work through the medium of the school administration, of other branches of study and of games, as suggested in the "Related Number Work." There should be occasional talks with the pupils on number work and daily incidental work. Symbols may or may not be given with the first presentation of number, but should be learned soon. Unconsciously the child acquires the idea of the "one to one correspondence" of

	Number	Name	Symbol
thus:	: :	four	4

Children should become familiar with the number-pictures up to 12 or 15, to aid in getting the proper notion of a number *as a group of units*, thus guarding against the idea that a number, as 7, for instance, is the 7th in the series because named 7 in counting. Deal with numbers as wholes and lead pupils, by the process McLellan and Dewey call "parting and wholing," to find the combinations which make them, though do not attempt anything approaching multiplication. Bring out clearly and thoroughly the comparative value of the numbers used,—the notion of greater and smaller,—of how many greater and smaller.

After the child has attained, by concrete work, the idea of a series, let him extend it slowly, and as he needs to extend it in connection with the other work of the grade and the school. Teach the child to write legibly and to read the numbers met with, though ordinarily this should not be extended beyond 20 or 25 the first year, except by fives and tens in the case of United States money, and in this case not beyond 100. Do not attempt to teach the place value of tens and units.

Teach Roman numerals up to XII, as applied to the clock-face for telling time. Teach minute, hour, day, week, and month.

In denominate numbers use money to teach the units from a

cent to a dollar. Through your Principal obtain measures from the storeroom and teach, objectively, pint, quart, gallon, inch, foot, and yard. With the measures use sand, pebbles, beans, etc.

Teachers of this grade should own Speer's *Primary Arithmetic* for Teachers, and should read chapters VIII-X of McLellan and Dewey's *Psychology of Number*.

SECOND GRADE.

I. COUNTING—(a) By single things, applied to eye and ear.

(b) Not confined to single things; as, counting different groups or piles of things. Use the method of "parting and wholesing" described by McLellan and Dewey. After the child has gotten the proper notions of number as a group of units, the number series may be extended without concrete work. Knowing 4 and 14, the child can understand 34 by analogy.

(c) Counting the same quantity with different units or groups; as, 18 feet by yard-units and foot-units, 12 sticks by 2's, 3's, and 4's, a gallon by pints and by quarts, a dollar by dimes and quarters.

(d) Counting different quantities with the same unit or group.

(e) Begin at a certain number and count forward a certain number, as 5 more from 13. Teach counting to 100 the second year.

(f) Roman numerals up to XXV.

II. NUMBER WORK.—(a) Teach the place value of units, tens, and hundreds.

(b) Teach the signs plus, minus, and equal to.

(c) Teach addition and subtraction as indicated under counting, and extend its use by the use of objects and analogy; as,

3,	13,	23,	4,	14,	12,	22,	
2	2	2	4	4	5	5	41, 31, 21, etc.
—	—	—	—	—	—	—	

Gradually extend the work, though do not exceed 100 during the year and place chief emphasis on combinations of less than 50.

(d) Teach numbers up to 20 or 25 during the year, so that the pupils will be quite familiar with them and can readily recognize all sums and differences and the pairs of unit combinations involved. Do not let pupils attempt to find out by *counting* the sum of any two numbers. It should be the teacher's aim to prevent this. Do not try to exhaust everything to be known about each number and the interest of the pupil besides. Place the pairs that make each number on the blackboard as fast as developed and keep them there for drill or memorizing.

Remember not to proceed from one number to the next by the addition of a unit, but give the "whole" to be learned and let the pupil ascertain by his own investigations of what combinations it is made up.

Do not *drill* on the *times*-aspect and use it only for doubles and halves, three times and thirds, fourths, and fifths, and these within the limits of 25. Teach the fractions $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ within the limits of 20, and $\frac{1}{5}$ within the limits of 25, and by tens to 50. *Teach these fractions at the same time as the wholes.*

Give a great variety of practical problems in connection with all the work and require operations performed mentally. Remember that all pure number work is mental, and that consequently work in Arithmetic performed entirely mentally without the help of pencil or crayon is worth three times as much as written work for the purpose of developing true number notions. The first forty lessons in the State Primary Number Lessons furnish exercises for a part of the work. No book in the hands of the pupils. Omit all such exercises as 1 plus 1 equals what?—3? The teacher should also have in hand the Teachers' Edition of McLellan and Ames' *Primary Arithmetic* for suggestions and exercises in the "measuring idea." Follow this work in "Suggestions to Teachers," pp. xi—xxvii and pp. 1-19. Consult "Suggestive Lessons," p. xxviii, *et seq.* Teachers should also consult Speer, and McLellan and Dewey, as indicated under First Grade.

Use the terms sum, difference, minuend, and subtrahend, but do not stop to teach them to the pupils, for they will soon be acquired. As far as possible teach the method of subtraction by addition as used by business men in making change.

At the close of this year, pupils ought to be able to add and subtract readily and accurately numbers involving combinations learned.

THIRD GRADE.

COUNTING.—Extend counting during the year to 500, and write numbers, to 100,000. Teach the place-value of units, tens, hundreds, thousands, tens of thousands, and hundreds of thousands. Counting by 2's, 3's, 4's, 5's, and 6's, gradually extending limits.

Addition is the most important of the fundamental operations, and should be thoroughly learned. Do not require the addition of a column containing combinations not previously learned. Gradually extend the work, so that at the close of the year pupils may be able to add numbers of three periods, six to eight in a column, and numbers of four periods, two to three, to a column. Extend subtraction in a similar manner. Give the pupils drill in making and solving problems which involve the combinations learned.

Give daily mental drill, to secure accuracy and rapidity, on such problems as 3 plus 3, plus 2, plus 2, take away 5, take away 1, add 6, half of it, half of it, add 1, half of it, add 10, add 3, third of it, take away 3; equals what? Vary the abstract mental work by giving concrete problems.

By the second half of the year the work in multiplication and division should have been begun. Teach thoroughly as you advance the "law of commutation," i. e. product is always the same no matter what is the order of the factors, making clear that 2 times 4 equals 4 times 2, etc. Teach the multiplication of 24 times 42 and 42 times 24. Teach the division of 2 into 44, 3 into 666. Develop and extend the work in multiplication and division through 12's by the close of the year, and complete the tables this far. Use the terms of multiplication and division. Drill thoroughly on all work in tables, and the use of multipliers and divisors up to 10.

FRACTIONS.—Work in simple fractions should accompany the work in multiplication and division, being introduced through the work in "parting or wholing" in developing the multiplication and division tables, and so using halves, thirds, fourths, fifths, and

sixths. Use both counters and measuring work in developing these relations:—gallons and bushels for halves and fourths; foot, yard, or dozen for halves, thirds, fourths, and sixths; and money for halves, quarters, and fifths. Employ “Related Number Work” in this connection. Try to make the fractions as intelligible as the whole numbers.

MENTAL DRILL.—Give daily mental drill, both abstract and concrete, involving such problems as:—3, plus 3, plus 4, plus 2, take away 6, take away 6, add 10, the half of it, multiply by 3, add 1, take away 6, add 2, the half of it, the third of it, multiply by 4, half of it, multiply by 4; equals what?

Or, Charles had 10 cents, his mother gave him half as much again, his father doubled what he now had, he spent $\frac{1}{3}$ of his money for marbles, and gave his sister $\frac{1}{2}$ of what was left; how much had he left?

Also give simple mental problems in the reduction of denominate numbers and involving one step, thus: How many feet in 2 yards? In 3 yards? In 2 yards and 1 foot? In 3 yards and 2 feet? 6 gallons are how many quarts? 5 gallons and 3 quarts are how many quarts? 10 feet are how many yards? United States money with the decimal point.

Give frequent written problems, and require the pupils to get the thought by reading and thinking, instead of by hearing. Aim at increased accuracy and thoroughness throughout the year. Require clear statements in the solution of problems.

State Primary Number Lessons in the hands of the pupil. Use such parts of lessons 1-40 as may seem desirable, and take to lesson 85, using discretion with such problems as 13 plus 2 divided by 3 plus what, equals 6, and omitting such problems as 4 times 6 equals 3 times what? Teachers of this grade should refer constantly to such books as McLellan and Ames's *Primary Arithmetic*, following the work on pp. 22-131 of the Teachers' Edition, consulting such portions of “Suggestive Lessons” pp. xxviii-lxxxiii as apply to the work in hand; Walsh, Part I; or Prince, No. 3, and should read the chapters in McLellan and Dewey which bear on the work of the grade.

FOURTH GRADE.

Reading and writing of numbers to 1,000,000. Counting by 4's, 5's, 6's, 7's, etc. Review the previous work thoroughly and extend it to more difficult problems. Complete the multiplication tables, and drill on them until every pupil knows them. Work for thoroughness and rapidity. In connection with the multiplication table teach the resolving of such numbers as 15, 24, 30, and 64 into two factors, as 3 times 5, 4 times 6, 6 times 5, and 8 times 8. Bring out the law of commutation. Multiplication and division by multipliers and divisors to 12 inclusive. This work must be done so that the results will be accurate and permanent. By the middle of the year begin the teaching of long division. Teach by measuring, having long division nothing more nor less than an outgrowth of the work of short division. Use the terms sum, difference, minuend, subtrahend, multiplicand, multiplier, dividend, divisor, quotient, and remainder, if not previously learned. These may be written down as designating the parts of the problem until learned. Do not spend time in drilling on the use of the names.

Four fundamental operations on United States money, but no decimal fractions in multiplier or divisor. Simple bills, applying to United States money. Simple mental interest examples, computing for years and fractions of a year, but not using per cent. as multiplier.

Examples in compound numbers involving reduction of the same in the tables already learned, but involving but one step, as illustrated in Third Grade. Areas of squares and rectangles by square measure.

Addition and subtraction of simple fractions with the same denominator or with denominators different whose equivalence to the common denominator is easily comprehended. Use measures for this work, as in the development of fractions; e. g.: $\frac{1}{2}$ of a foot equals 6 inches; $\frac{1}{3}$ of a foot equals 4 inches; 6 inches plus 4 inches equal 10 inches. Since 1 inch equals $\frac{1}{12}$ of a foot, 10 inches equal ten times $\frac{1}{12}$, or $\frac{10}{12}$ of a foot.

Daily mental drill on the four fundamental operations, using both whole numbers and easy fractions, as indicated under Third

and Fourth Grade outlines. Much work in reading problems and thinking out solution. Require analysis, most of it oral, of problems like the following:—

(1) If one pencil costs 5 cents, 7 pencils will cost 7 times 5 cents, or 35 cents.

(2) If 7 pencils cost 35 cents, 1 pencil will cost $\frac{1}{7}$ of 35 cents, or 5 cents.

The State Primary Number Lessons should be completed the first half of the year. For the second half of the year the work may be based in part on pp. 1-54 of the State Advanced Arithmetic, the book in the hands of the teacher only, or on pp. 1-75 of McLellan and Ames's *Public School Arithmetic*. Walsh's *Elementary Arithmetic* contains excellent lists of problems. Teachers should also draw upon Bailey's *Mental Arithmetic*, pp. 1-28, except p. 13. Teachers will also get much help from McLellan and Ames's *Primary Arithmetic, Teachers' Edition*, pp. 131-197; and should read the chapters in McLellan and Dewey which bear upon the work of the year.

FIFTH GRADE.

Review the work of the previous grades and extend it to more difficult work. Begin with problems involving the four fundamental operations and continue such work throughout the year, giving both oral and written drill. Require clear statements in the solution of problems. Extend the work in factoring begun in the Fourth Grade and teaching G. C. D. and L. C. M., State Advanced Arithmetic in the hands of the pupil. Use the book both in reviewing and in advanced work (pp. 1-69), supplementing the work by problems from other sources.

Study United States money in bills, and using problems involving the four fundamental operations. Review what has been learned in the tables for United States Money, liquid measure, dry measure, linear measure, surface measure, and time measure. Develop the idea of volume, using the cubic inch and cubic foot as units. Reduction problems involving two steps may be used.

Use these measures in extending the work in fractions, and

teach addition, subtraction, multiplication, and division of fractions, using small denominators at first and no denominator larger than 100 during the year. Use denominators which are multiples, found in the multiplication tables. Teach the pupils to find the common denominator by inspection. Change fractions to equivalent fractions having a different denominator, which is but another phase of the "law of commutation." Teach all terms used in connection with fractions. Give special drill in finding a part of a number when the whole is given (Exercise 123), in finding what part or fraction one number is of another (Exercise 136, second part), and in finding the whole number when a part is given (Exercises 138 and 139), but do not use such large numbers as are given in these exercises. Use easy decimals in the same way. This work should be almost entirely mental, and teachers should work for accuracy and reasonable rapidity. Give many simple problems, oral and written, involving the use of fractions, and require careful analysis of many of the problems.

Along with the work in fractions teach the reading and writing of simple decimal fractions. The work in United States money with the decimal point, given in Fourth Grade, will serve as a starting-point. Use simple fractions but bring out the essential unity of such fractions as $5-10$ and $.5$, of $\frac{1}{2}$ and $.5$, and of $\frac{3}{4}$ and $.75$. Also teach the essential unity of $\frac{1}{2}$ plus $\frac{1}{4}$ equals $\frac{3}{4}$ and $.50$ plus $.25$ equals $.75$, or the opposite in subtraction. Similarly do easy work in multiplication and division of decimals in connection with the multiplication and division of simple fractions.

Introduce per cent. with hundredths in fractions, interchanging the term "per cent." and the denominator 100 until the pupils appreciate their identity. Practice on the reduction of fractions having other denominators to 100ths, or per cent. Apply the work in problems.

As there is a great educational gain in teaching easy fractions along with whole numbers, so is there a large educational advantage in teaching simple decimal fractions along with common fractions, and not treating them as something distinct and difficult. But in doing the work of this grade the caution of attempting only simple work should be kept in mind by teachers. The work is almost

wholly an extension of what has been previously learned, using the knowledge of the four fundamental operations, the knowledge of fractional parts, and the knowledge of the measures as a basis for fractional work.

It is to be expected that as a result of this year's work, there shall be accuracy and reasonable rapidity in the four fundamental operations, as applied to *small* common and decimal fractions, and thinking ability, as expressed in the power to give an oral analysis of such simple problems. No difficult problems or methods of solution will be expected. What is wanted is a *thorough drill* on a few fundamental operations, using only such problems as pupils can handle readily. It is the purpose of the work of the Sixth Grade to extend and clinch the work by a thorough study of the subject. All supervisory tests will be made on the foregoing basis.

Teachers may draw upon the State Advanced Arithmetic to such an extent as may seem advisable, but should supplement the work by problems of their own from such sources as Bailey's *Mental Arithmetic*, Walsh's *Elementary Arithmetic*, and McLellan and Ames's *Public School Arithmetic*. Teachers of this grade should also read McLellan and Dewey, pp. 207-278.

SIXTH GRADE.

FALL TERM.

At the beginning of the year, and from time to time throughout the year, give rapid drill on the four fundamental operations, using both small and large numbers. State Advanced Arithmetic in the hands of the pupils. Review general principles of division, pp. 55-56. Review the work in factors, multiples, and common and decimal fractions of the Fifth Grade, and study pp. 72-113, omitting exercises 96, 99, 101, 103-109, 111, and 113. Give special mental drill in finding a part of a number when the whole is given, in finding what fraction one number is of another, and in finding the whole when a part is given, as indicated under Fifth Grade, and using both common and decimal fractions. Do not use too difficult numbers, and work for accuracy and rapidity. Teach that

inverting the terms of the divisor in division of fractions gives the same quotient as finding a common denominator and dividing the numerator of the dividend by the numerator of the divisor, omitting analysis of the process, p. 90. In exercise 141 omit problems 20, 30, 35, and 36, and in exercise 142 omit problems 23, 25, and any or all after 27. Teach decimal percentage in this connection, connecting common and decimal fractions by percentage. Omit contracted multiplication and division of decimals, pp. 111-113. Study only No. 1 of Short Methods of Multiplication and of Division.

SPRING TERM.

Continue the work of common and decimal fractions. Begin at page 113, exercise 168. Study Bills, pp. 119-121. Correlate Arithmetic and Writing by giving practice in writing and receipting bills. This work will be carried still further in writing Business Forms in Seventh and Eighth Grades. Take Civil Service method of addition and proof (Course of Study, 1897-8.) McLellan and Ames's *Public School Arithmetic*, pp. 86-156, should be in the hands of the teacher. Also study Weights and Measures, pp. 122-150, omitting all metric measures, surveyor's long measure, surveyor's surface measure, stone and brick work, circular measure, longitude and time (teach this in connection with Geography), and reference tables. Treat carpeting and plastering only sufficiently to show the methods used in calculating in these subjects. Give examples in reduction both ways. As soon as the class has mastered the subject you are teaching, omit problems and pass to the next subject. It is not necessary that all of the class should work all of the problems. McLellan and Ames's *Public School Arithmetic*, pp. 157-196, or Walsh's *Intermediate Arithmetic*, in the hands of the teacher.

Carry on mental work daily, using such material as is indicated for preceding grades. Bailey's *Mental Arithmetic* in the hands of the teacher. Have as much of the work performed mentally as possible, and give a few minutes of rapid daily drill of the nature indicated under Third and Fourth Grades.

SEVENTH GRADE.

Review the work of the previous grade. Use mental and written work based on factors, multiples, fractions, and the weights and measures taught. State Advanced Arithmetic in the hands of the pupils. Work such of the examples on pp. 158-167 as may seem necessary, omitting all problems based on weights or measures not studied in the previous grades. As soon as the pupils grasp the subject, pass on to the next. Give mental drill on the use of the four fundamental operations with fractions and whole numbers. Pupils should attain accuracy and reasonable rapidity with such mental work as 4, plus 4, multiplied by 2, plus $\frac{1}{4}$ of it, take away $\frac{3}{4}$ of it, multiply by 6, divide by 2-3, divide by 10, multiply by 3, multiply by $1\frac{1}{3}$, multiply by 12, take away 50, take away 24, 1-6 of it, equals what?

Study United States money, pp. 168-171, but omitting problems 56-65 on p. 171; analysis, pp. 172-175; omit proportion and partnership. (See further suggestions under Spring Term outline.)

SPRING TERM.

Continue work begun during the Fall Term, and give mental work on percentage with drill on the problems of pp. 181-185; study Profit and Loss, Commission, Insurance, and Taxes, pp. 185-199, briefly; and omit Duties and Stocks. Also omit many of the problems. As soon as the class has mastered the principle, pass to the next subject. Do not expect every pupil in the class to work every problem. Lead the pupils to see that these applications are all different phases of the principle of percentage. The chief difficulties with these applications of percentage, if the pupils are thoroughly grounded in the theory of percentage as they should be, lie not on the arithmetical side of the work, but in the technical nomenclature and method of computation peculiar to the particular subject studied. Pupils should be required to determine of themselves and state what arithmetical operation is involved in each problem in his study of each of these subjects, as directed in connection with the general forms, especially in commission.

Study interest, pp. 204-216, treating partial payments and compound interest briefly. Use 6 per cent. method. Partial payments may be omitted, and bank discount should be omitted. Give much rapid drill on simple interest problems.

Carry on the mental drill parallel with the text-book work, Bailey's *Mental Arithmetic* in the hands of the teacher. Let much of the review work be mental work. Supplement the work from such sources as Walsh or McLellan and Ames.

During 1900-1901 only teachers in this grade will study Weights and Measures thoroughly as indicated under Sixth Grade, instead of merely as a review of previous work, for the reason that Sixth Grade classes during 1899-1900 did not study the subject. It will probably be necessary to any detailed study of interest during 1900-1901.

EIGHTH GRADE.

Give a brief review of the four fundamental operations as applied to whole numbers and fractions, as indicated under Seventh Grade, and as applied to denominate numbers and United States money. This review should be largely mental. Bailey's *Mental Arithmetic* in the hands of the teacher.

Begin at analysis, p. 172. Study Proportion and Partnership; review the Seventh Grade work between pp. 172-216 to whatever extent may seem necessary, omitting any parts indicated to be omitted under Seventh Grade outline. Continuing from p. 216, omit Bank Discount; study Discount; study Accounts and correlate with Writing by writing and receipting bills; omit Exchange, and Average of Payments. (See Spring Term for further suggestions.)

SPRING TERM.

Continue the work of the Fall Term. Study Square Root, but omit Cube Root. Under Mensuration, study surface, prisms, and cylinders, and circular measure (pp. 146-147), but omit pyramids, cones, spheres, and frusta. Metric System optional.

In both review and advanced work it is not necessary

to solve all of the problems. As soon as it is evident that a class has mastered a principle omit problems and pass to the next subject. Whenever better problems can be found than those in the text use them. Supplement from such sources as McLellan and Ames, Walsh's *Higher Arithmetic*, and Bailey's *Mental Arithmetic*.

Parallel the written work with much mental work. Do not depend too much upon written work. Have as much of the work performed without pencil or crayon as possible. Give occasional rapid mental drill on whole numbers and fractions, as indicated under previous grades.

By the time the Eighth Grade is reached pupils should begin to use some general forms of expression and become familiar with the use of the equation as a general form of the "law of commutation." After the pupils have become familiar with the fact that 4 times 6 equals 6 times 4, and 4 times 6 divided by 4 equals 6 times 4 divided by 4, or 6 equals 6, it is an aid to thinking to see that this fact is capable of general expression in the forms a times b equals b times a , and a times b divided by a equals b , or b equals b .

For 1900-1901 only, Eighth Grade classes should give the denominate numbers which are to be taught whatever emphasis may seem necessary, and make selections from the problems on pp. 158-167, which were not used by Seventh Grade classes in 1899-1900.

4. REFERENCES.

The following books and articles on the teaching of Arithmetic are easily accessible and will be found valuable by teachers of the subject:—

Belfield and Brooks. *The Rational Elementary Arithmetic*. A primary arithmetic after McLellan and Dewey's ideas.

Bigley and Longan. *Arithmetic in Primary and Intermediate Grades*.

Committee of Ten of the N. E. A. *Report*, Section on teaching Mathematics, pp. 104-116.

Dewey and McLellan. *Psychology of Number*. (D. Appleton & Co., \$1.50.) This book will be of great help to teachers, and should be carefully studied by every teacher of Arithmetic.

Hancock, John. Children's Ability to Reason, *Educ. Rev.*, Vol. XII, pp. 261-9. (Oct. 1896.)

Jackman, W. S. Relation of Arithmetic and Elementary Science, *Educ. Rev.*, Vol. V, pp. 35-51. (Jan., 1893.)

Jackman, W. S. *Number Work and Nature Study*. Chicago, 1893.

Smith, David Eugene. *The Teaching of Elementary Mathematics*. (Macmillan Co., 1900.)

Speer, W. W. *Primary Arithmetic for Teachers*. (Ginn & Co.) Contains a discussion of elementary number work.

Taylor, Jos. S. Some Practical Aspects of Interest, *Pedagogical Seminary*, Vol. V, pp. 497-512. Describes the use of Arithmetic as a test of the efficiency of teaching.

Walker, Francis. *Discussions in Education*. (Holt. 1899.) Contains two good articles on teaching Arithmetic.

VII. NATURE STUDY AND HYGIENE.

1. INTRODUCTION.

In the following outline Hygiene and Physiology are classed with such elementary work in Nature Study as may easily be done. Both outlines contain about what has been indicated by the teachers as desirable. For the present there is no attempt to do thorough and systematic work in Nature Study. When the work is undertaken it will be placed under the direction of special instructors, begun in a few schools, and gradually extended so as finally to include all of the schools in the Department.

For the present the following outline is all that will be expected, though schools which desire to do further work may do so, provided that the teachers are prepared to do the work and that the other subjects of the Course of Study be not neglected.

In all the work in Nature Study, and as much as possible in Physiology, base the work on observation of the things themselves, and use the observation as a basis for questions and real thinking. Do not send children to books for information, but to the things themselves.

The average Nature Study reader is a very dangerous kind of a book to use. The place of a Nature Study reader is as a supplement to observation, but to permit pupils to read from the book first is deadly to any real interest in the things themselves. Observation, not information, is the kind of training sought.

2. OUTLINE OF INSTRUCTION.

FIRST GRADE.

NATURE STUDY.—(See suggestions under Geography, and “Related Number Work,” under Arithmetic.) Make the work of this grade largely sense-training, and correlate with Geography, Arithmetic, and Drawing. Exercise the sense of smell, color, and hearing, and train in estimation of relative size. Use flowers, fruits, vegetables, and rocks.

Lead the conversation in such directions as will tend to set up the habit of observing such common things as flowers, horses, and the weather. Occasionally bring a common animal into the classroom. such as a dog, a rabbit, or a hen.

HYGIENE.—Talks on cleanliness, and the importance of proper carriage of the body,—sitting, standing and walking. Talks on how to keep healthy, impressing upon children the importance of keeping clean, of breathing pure air, of eating wholesome food, and of exercising in the open air. Speak of mush, milk, vegetables, fruit, and bread as foods. Try to see that children learn how to play, and encourage them to take an active interest in games.

SECOND GRADE.

NATURE STUDY.—(See suggestions under Geography and “Related Number Work.”) Continue the same kind of training indicated under First Grade. Have pupils handle and talk about such minerals as gold, silver, lead, and coal; and such rocks as granite, sandstone, and cobblestones. Locate these rocks as found near the schoolhouse.

Have pupils examine the seeds before planting them in the window boxes, and watch their growth. Have Observation lessons on fruit, such as nuts, oranges, stones, and seeds of fruits.

Observe, during the year, five animals as types, such as a hen, a cat, a child, a fish in an aquarium, and tadpoles in their change to frogs.

HYGIENE.—In studying the child notice head, body, limbs, hands, and feet. Talk with the pupils on the care of the body,—danger of blows on the head, chest, back, or limbs, and danger of pulling upward by the arm. Review the principles or rules of health learned in the First Grade, and also teach the importance of breathing through the nostrils, of carefully chewing one's food, and of going to bed early and sleeping eight to ten hours in a dark and quiet room. Emphasize the care of the nails and general cleanliness.

THIRD GRADE.

NATURE STUDY.—Continue the work as indicated for Second Grade. Add two or three minerals to those studied in the Second Grade, such as iron, quicksilver, and salt. Have observation lessons on the magnet.

Examine seeds, sprouts, leaves, and buds, using only such specimens as are easily examined.

Have talks with the pupils, basing them on observation, about animals which the children have seen, such as the robin, horse, cow, monkey, or elephant, or, better still, those which may be brought into the classroom, such as the snail, crab, turtle, earth-worm, or rabbit.

HYGIENE.—Review the work of preceding grades. Teach the importance of cleanliness and fresh air; proper carriage of the body; how to take care of the face, neck and ears, nose, eyes, hands, finger-nails, and feet; how to take care of the teeth, and use of toothpick and toothbrush.

Also have talks about food and eating, proper table manners, proper mastication of food, and injurious effects of coffee, tea, wine, and beer.

FOURTH GRADE.

NATURE STUDY.—Continue and extend the work of the preceding grade. Study such minerals as marble, sulphur, chalk, and copper, and some of their commercial uses. How metals are mined, manufactured, and shipped, and for what used. (Correlate with Geography.) What natural products are used in building a house.

Continue study of plants. Have the pupils come to know the common trees of the neighborhood, of the school or their homes. Talk about forests, lumbering, and the uses of trees, and about farming and the raising of fruits and grains.

Continue the study of common animals, such as the humming-bird, sea-gull, squirrel, and ostrich, or such easily obtainable ones as fly, spider, and ant. Encourage children to notice the animals when visiting the parks.

HYGIENE.—Review what has been learned so far. Teach the importance of proper care of the body,—keeping the feet warm and dry, the body warmly clothed, properly regulated exercise, plenty of good food, with milk or water to drink, injurious effects of too much white bread, pastry, cake, candy, all forms of grease, coffee, tea, wine, and beer. Teach the importance of proper sanitary conditions, exercise, sleep, and a regular and wholesome diet in promoting good health. Also emphasize the importance of educating ourselves, both for the purpose of knowing how to take better care of the body and as a duty we owe to ourselves.

FIFTH GRADE.

NATURE STUDY.—Talks on minerals and products as met with in the Geography work,—how mined or raised, how manufactured, and for what used.

Continue teaching pupils to know the common trees, and from time to time have talks on animals, and where found. Also make a few class studies of easily obtainable animals.

HYGIENE.—Review what has been taught in the Fourth Grade, and extend it by teaching we take cold or become sick when the body is tired or exhausted, from neglect of the laws of health, from lack of sufficient nourishing food, warm clothing, or sleep, from lack of exercise and fresh air, or as a result of grief or overwork. Include in this the injurious effects of overeating, overheating, and over-exercise. Teach the importance of breathing outdoor, moving air, through which the sun has recently been shining. Teach the health value of cheerfulness and kindness.

Study about bones and joints,—skull, ribs, spine, breast-bone, and bones of arm and leg; the kinds of joints found in the body and their uses (illustrate by levers).

SIXTH GRADE.

NATURE STUDY.—Study simple machines, experimentally, in class. Use such machines as the lever, pulley, wheel and axle, and inclined plane. Study the siphon and its use.

Study the life of a plant, and the different ways by which plants scatter their seeds. Uses of leaves, blossoms, sap-wood, and bark.

Continue to study such animals as may seem desirable. Read Dr. Jordan's *Matka and Kotik* in studying about seals, or from Seton-Thompson's books in studying about wild animals.

PHYSIOLOGY AND HYGIENE.—Review Fifth Grade work, and emphasize sanitary conditions. Study about blood, heart, circulation, arteries and veins. Buy a heart at a butcher's shop and use it in class to illustrate the subject.

SEVENTH GRADE.

NATURE STUDY.—A number of simple experiments on matter and its properties, attraction, heat and its effects on matter, and pressure of liquids and gases. Study the siphon, pumps, hydrant, barometer, and thermometer. Use these experiments as a basis for questions, and endeavor to develop the reasoning powers.

During the spring months make a thorough study of at least three common wild flowers.

PHYSIOLOGY AND HYGIENE.—State Series Physiology in the hands of the teacher only. Study:—

1. Habits to avoid (p. 153).
2. Mixed diet beneficial.
3. Regularity in eating and sleeping.
4. Use and danger of alcohol and narcotics.

5. Review of some of the simple laws of health.
6. Digestion and absorption.
7. The Alimentary Canal.
8. Stomach and Liver.
9. Care of the teeth.
10. Care of the eyes.
11. Accidents, dangers, and simple aids to the injured.

EIGHTH GRADE.

NATURE STUDY.—Simple experiments in light, heat, sound, magnetism, and chemical action. Perform such experiments as will reinforce the work in Physical Geography, outlined for this grade.

PHYSIOLOGY AND HYGIENE.—State Series Physiology in the hands of the teacher; optional as to pupils. Study:—

1. The lungs and respiration.
2. Skin and kidneys.
3. Eye and ear.
4. Throat and voice.
5. The nervous system.
6. Review of the subject of hygiene.

3. REFERENCES.

Teachers will find the following books particularly useful:—

Avery and Sinnott. *First Lessons in Physical Science for Grammar Schools.* (Sheldon & Co.)

Harriman, Chas. S. *Physics for Grammar Schools.* (Am. Bk. Co.)

Jackman, W. S. *Nature Study for Common Schools.* (Henry Holt & Co.)

Jenkins and Kellogg. *Lessons in Nature Study.* (Whitaker-Ray Co.)

McMurry. Chas. *Special Method in Science.* (Pub. School Pub. Co.)

VIII. DRAWING.

OUTLINE BY MISS KATHERINE M. BALL AND MISS DEE BEEBE,
SUPERVISORS OF DRAWING.

Work thou for pleasure; paint or sing or carve
The thing thou lovest, though the body starve.

Who works for glory misses oft the goal;
Who works for money coins his very soul.

Work for the work's sake, then, and it may be
That these things shall be added unto thee.
— *Kenyon Cox.*

This Course of Study provides for work on a basis of one hour a week, to be divided into three twenty-minute periods in the First, Second, and Third Grades, and two thirty-minute periods in the remaining grades.

It provides for the use of practice paper in all the grades, and for drawing-books and teachers' manuals additional in the grades from Fourth to Eighth, inclusive. It provides for the optional use of any medium such as pencil, charcoal, brush, and ink, colored crayons, water-colors, or (in upper grades) pen and ink.

The entire scheme of work is that of drawing from objects, with a small amount of copying from drawing-book illustrations to teach artistic expression. A proportionate amount of time has been given to picture-study and in the later grades, to the History of Art.

1. GENERAL INSTRUCTIONS.

1. Principals shall be responsible for the work in drawing in their respective schools. They shall familiarize themselves with every part of it, supervise it weekly, see that the lessons are given regularly, and explain all requirements of this subject to new teachers or substitutes coming into their schools.

2. When a Principal finds that a teacher fails to get results, he shall send her to the Supervisor for special instruction; but when he feels that she is incapable of teaching Drawing he shall detail another teacher from the school to teach this subject in exchange for some other exercise.

3. Programs should be so arranged that the lessons in different classes do not conflict when different teachers find it necessary to use the same models.

4. Instruction in both subject-matter and methods of teaching Drawing will be given to the teachers of each grade once a month. These meetings will be held at the Webster School, the Primary Grades convening at 3:15 P.M., and the Grammar Grades at 3:45 P.M. Principals shall include in their general reports, the attendance of their teachers at these meetings.

5. The Supervisor will inspect all work in Drawing done between her visits in the Principal's office and give him a report of each teacher's work, after which she will discuss the work with the teachers, or give such lessons as the remaining time of the session will permit, and on such phases of the work as she feels will be of the greatest benefit to the teachers.

6. Principals may dismiss any or all classes of the school the last half-hour of a session during the Supervisor's visit, in order that the teachers may assemble for instruction or see the lesson given by the Supervisor. Principals shall co-operate with the Supervisor, and make such arrangements as may enable her to make the most of her time and give all the teachers in the school the benefit of her visit.

7. The Supervisor shall make a monthly report to the Board of Education of the work found in the schools visited.

8. Principals shall see that all children are provided with the necessary materials within a week from the opening of school, and that the drawing-lessons begin promptly and be given regularly according to program.

9. The time allotted to drawing is one hour a week. This should be divided into twenty-minute periods in the Primary Grades and into half-hour periods in the Grammar Grades, as pupils are very apt to forget and lose skill if long lessons are given at long intervals.

10. In the event of there being two grades in one room, the entire class should do the work of the lower grade. Where there are three grades, the work of the intermediate class should be done. No teacher should attempt to give separate lessons to each grade.

11. If during the year a change of classes occurs, and a variety of material including different numbers of drawing-books, happens to collect in one room, it will be necessary for the teacher to adapt the same exercise to all the books, as it would be unwise to attempt to give separate exercises for groups having the same books, and in no case should the children be asked to buy a second book in the same year.

12. All drawing materials shall be kept in the teacher's cabinet and distributed and collected at each lesson. This should be done promptly and systematically, and without any unnecessary waste of time.

All work done between the visits of the Supervisor shall be kept for her inspection. This includes lessons that may be considered failures as well as those which are successes. All the different stages of the work must be seen in order to form an estimate of its success.

13. Each drawing-lesson given on practice-paper shall be arranged according to merit, and be bound together with a wide paper band, upon which shall be written the teacher's name, the grade of her class, and the date of the lesson.

14. In looking over the work, the Supervisor will consider the excellence of the average work of the children. A few talented pupils will always add color to a class, but the work of the whole class should determine the success of the results accomplished. The requisite amount of work representative of the lessons given in the

time allotted, the quality of work, the size and the placing of the drawing on the paper, the neatness and finish of the drawings, the power to see and express what is seen, and the growth from month to month will all be considered.

15. After work has been inspected, it should be returned to the children.

16. Drawing-books should be covered and kept neat and clean throughout their entire use. There may be degrees of excellence in drawing, but there should be but one standard for order and cleanliness. Books written all over with extraneous matter, having torn leaves and finger-marks or blots, only reflect discredit upon the children.

17. All exercises in the drawing-books shall be dated so that comparisons may be made for the purpose of determining the growth and improvement in the work.

18. A few of the best drawings of each representative lesson should be pinned on the door or on the molding of the blackboard, so that they may be seen by the entire class, and be a means of encouragement as well as an education to all.

19. Pupils should be encouraged to do home work, and when any such work has been done they should receive the heartiest approval and commendation of the teacher.

20. Teachers, in criticising the work of pupils, should try to give intelligent criticism. To tell a child that his work is poor and to do better, is depressing, not helpful. There should be an intelligent statement as to what is wrong, and, particularly, children should have pointed out to them the good lines which they draw or good work which they do, and be encouraged to work up to that as a standard.

2. OUTLINE OF INSTRUCTION.

FIRST GRADE.

Three twenty-minute lessons a week. Work on 6 by 9 inch practice-paper.

1. **COLOR STUDY.**—Color recognition, color relationship. Lay the scale. Study yellow, orange, red, violet, blue, and green. Use colored tablets, colored crayons, or water-colors.

2. **TABLET-LAYING.**—Lay simple borders and rosettes, using circular, square, or oblong tablets. Make imaginative arrangements.

3. **STICK-LAYING.**—Copy designs from given blackboard drawings. Make imaginative arrangements.

4. **PAPER-FOLDING.**—Fold shawl, roof, book, square with diameters and diagonals, card case, frame, windmill, ship, and similar things.

5. **DRAWING FROM COPY AND DICTATION.**—Draw trees, simple landscape, and simple decorative designs. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass instead of outline.

6. **SPONTANEOUS STORY-DRAWING.**—Illustrate simple fables, well-known stories, anecdotes, etc. (See Graphic Illustration under Language Course.) Use any medium, and work for mass effects.

9. **DRAWING FROM OBJECTS.**—Draw sprays of foliage, grasses, and flowers. Use any medium, and work for mass effects.

10. **PICTURE-STUDY.**—Study the works of well-known artists who represent things of interest to children.

SECOND GRADE.

Three twenty-minute lessons a week. Work on 6 by 9 inch practice-paper.

1. **COLOR-STUDY.**—Review the laying of the scale of twelve spectrum colors. Review the study of yellow, orange, red, violet, blue, and green. Use colored tablets, colored crayons, or water-colors.

2. TABLET AND STICK LAYING.—Lay borders and rosettes. Make imaginative arrangements.

3. PAPER-FOLDING AND CUTTING.—Fold and cut decorative designs in parts of four, such as four-pointed star, Greek cross, quatrefoil. Modify these forms for original patterns.

4. DRAWING FROM COPY AND DICTATION.—Draw trees, simple landscape, simple animal studies, small life, and decorative designs made in paper-folding and cutting. Learn bisecting, trisecting, and testing measurements. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

5. SPONTANEOUS STORY-DRAWING.—Illustrate simple fables, well-known stories, anecdotes, etc. Draw some from the pose and from animals to illustrate stories, and add imaginative backgrounds. Use any medium and work for mass effects. (See Graphic Illustration under Language Course.)

6. APPEARANCE-DRAWING FROM OBJECTS.—Draw fruit and vegetables, sprays of foliage, flowers and grasses. Use any medium, and work for mass effects.

7. PICTURE-STUDY.—Study the works of well-known artists who represent things of interest to children.

THIRD GRADE.

Three twenty-minute lessons a week. Work on 6 by 9 inch practice-paper.

1. COLOR-STUDY.—Study scales of light and dark tones of red, orange, yellow, green, blue, and violet. Use colored crayons or water-colors.

2. PAPER-FOLDING AND CUTTING.—Fold and cut four-leaved rosette, quatrefoil, Maltese cross, and trefoil. Modify these forms for original patterns.

3. DRAWING FROM COPY AND DICTATION.—Draw the patterns made in folding and cutting exercises. Pay special attention to bisecting, trisecting, and testing measurements. Draw simple studies of trees and landscapes, of animal and small life studies, from given copies. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

4. SPONTANEOUS STORY-DRAWING.—Illustrate simple fables, well-known stories, anecdotes, etc. (See Language Course.) Draw from the pose and from animals to illustrate stories, and add imaginative backgrounds. Use any medium, and work for mass effects.

5. DRAWING FROM OBJECTS.—Draw from fruits and vegetables, sprays of foliage, flowers, grasses, and twigs. Use any medium, and work for mass effects.

6. PICTURE-STUDY.—Study the works of well-known artists who represent things of interest to children.

FOURTH GRADE.

Two thirty-minute periods a week. Use 9 by 12 inch practice-paper. Prang's *Elementary Course of Art Instruction*, Third Year Book, in the hands of the pupils; *Manual*, Part I, in the hands of teacher.

1. COLOR-STUDY.—To be derived from working in colored crayons and water-colors, when drawing from colored objects or copying colored designs.

2. DRAWING FROM COPY AND DICTATION.—Copy decorative patterns of the drawing-book, and copy selected examples in spaces designed for them. Study given landscape studies. Modify and adapt them to given spaces. Copy from animal drawings. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

3. DRAWING FROM OBJECTS.—Draw in the drawing-book fruits, vegetables, shells, sprays of leaves and flowers, twigs and grasses.

*Draw from the pose and from animals to illustrate stories, and add imaginative backgrounds. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

4. PICTURE-STUDY.—Study given book illustrations and the works of artists suggested by this study.

*Take up a simple outline of the history of the examples of decoration given in the drawing-book. Be very careful to keep this clearly within the range of children.

FIFTH GRADE.

Two thirty-minute periods a week. Use 9x12-inch practice-paper. Prang's *Elementary Course of Art Instruction*, Fourth Year Book, in the hands of the pupils; *Manual*, Part II, in the hands of teachers.

1. COLOR-STUDY.—To be derived from working in colored crayons and water-colors when drawing from colored objects or copying colored designs.

2. DRAWING FROM COPY AND DICTATION.—Study decorative patterns of the drawing-book and copy selected examples in spaces designed for them. Study given landscape drawings, and modify and adapt them to given spaces. Copy given drawings of birds. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

3. DRAWING FROM OBJECTS.—Draw fruits and vegetables, sprays of foliage, flowers, and grasses. Draw simple, familiar objects, such as hats, flower-pots, and waste-baskets, or such beautiful objects as Japanese lantern, vase, or Indian basket.

*To be omitted during 1900-1901.

*Draw from the pose and from animals to illustrate stories, and add imaginative backgrounds. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

4. CONSTRUCTIVE DRAWING.—Make working drawings and patterns of cylinder, square prism, and tri-prism.

5. PICTURE-STUDY AND HISTORY OF ART.—Study given drawing-book illustrations, also some works of artists suggested by this study.

*Take up a simple outline of the history of the examples of decoration given in the drawing-book, being careful to keep this clearly within the range of children.

SIXTH GRADE.

Two thirty-minute periods a week. Use 9x12-inch practice-paper. Prang's *Elementary Course of Art Instruction*, Fifth Year Book, in the hands of the pupils; *Manual*, Part III, in the hands of teachers.

1. COLOR-STUDY.—To be derived from working in colored crayons and water-colors when drawing from colored objects or copying colored designs.

2. DRAWING FROM COPY AND DICTATION.—Study decorative patterns of the drawing-book and copy selected examples in spaces designed for them. Study given landscape studies, and modify and adapt them to given spaces. Copy given drawings of butterflies and small life. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

3. DRAWING FROM OBJECTS.—Draw flowers, and grasses, and familiar objects, such as bottles, bells, flower-pots, hats, waste-baskets, or such beautiful objects as lanterns and Indian baskets.

*To be omitted during 1900-1901.

*Draw from the pose and from animals to illustrate stories and add imaginative backgrounds. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

4. CONSTRUCTIVE DRAWING.—Make working drawings of the cylinder and square prism grouped, or of the square pyramid and square prism grouped; also of several simple common objects.

5. PICTURE-STUDY AND HISTORY OF ART.—Study given drawing-book illustrations and some of the works of artists suggested by this study. Take up a simple outline of the history of the examples of decoration given in the drawing-book.

SEVENTH GRADE.

Two thirty-minute periods a week. Use 9x12-inch practice-paper. Prang's *Elementary Course of Art Instruction*, Sixth Year Book, in the hands of the pupils; *Manual*, for the Sixth Year Book in the hands of teachers.

1. COLOR-STUDY.—To be derived from working in colored crayons and water-colors when drawing from colored objects or copying colored designs.

2. DRAWING FROM COPY AND DICTATION.—Copy selected examples of historic ornament given in the drawing-book in spaces designed for them. Copy given tree drawings, also given animal studies. Study given landscape drawings, and modify and adapt them to given spaces. Use pencil, charcoal, colored crayons, brush and ink, or water-colors. Work for mass effects.

3. DRAWING FROM OBJECTS.—Draw in the drawing-book flowers, and familiar objects, such as lunch-boxes, books, and similar angular objects; also such round objects as vases and pitchers. Draw from the pose and from animals to illustrate stories, and add imaginative backgrounds. Use pencil, charcoal, colored crayons.

*To be omitted during 1900-1901.

brush and ink, pen and ink, or water-colors. Work for mass effects. Solve, by drawing with simple instruments, easy geometric problems.

4. CONSTRUCTIVE DRAWING.—Draw face-views of the models and useful objects given in the drawing-book. Working drawings of models made in manual-training exercises may be substituted for this work.

5. PICTURE-STUDY AND HISTORY OF ART.—Study given drawing-book illustrations and some works of artists suggested by this study. Take up a comparative study of the history of Egyptian and Greek architecture and ornament as given in the drawing-book.

EIGHTH GRADE.

Two thirty-minute periods a week. Use 9x12-inch practice-paper. Prang's *Elementary Course of Art Instruction*, Seventh Year Book, in the hands of the pupils; *Manual*, for Seventh Year Book, in the hands of teachers.

1. COLOR-STUDY.—To be derived from working in colored crayons and water-colors when drawing from colored objects or copying colored designs.

2. DRAWING FROM COPY AND DICTATION.—Copy selected examples of ornament given in the drawing-book in spaces designed for them. Copy given tree drawings, also given animal studies. Study given landscape drawings, and modify and adapt them to given spaces. Use pencil, charcoal, colored crayons, brush and ink, pen and ink, or water-colors. Work for mass effects.

3. DRAWING FROM OBJECTS.—Draw in the drawing-book sprays of foliage and flowers, a study of some flowers in a vase, and a group of several objects. Draw from the pose and from animals to illustrate stories, and add imaginative backgrounds. Use pencil, charcoal, colored crayons, brush and ink, pen and ink, or water-colors. Work for mass effects.

4. CONSTRUCTIVE DRAWING.—Draw with simple instruments some of the simple elements of building construction, such as door-joints; also surface development, and sections of geometric types and simple common objects. Working drawings of models made in manual-training exercises may be substituted for this work.

5. PICTURE-STUDY AND HISTORY OF ART.—Study given drawing-book illustrations, and some of the works of artists suggested by this study. Take up a comparative study of the history of Roman, Byzantine, and Romanesque architecture and ornament as given in the drawing-book.

IX. MUSIC.

OUTLINE BY MISS ESTELLE CARPENTER, SUPERVISOR OF MUSIC.

1. INTRODUCTION.

Music should never be neglected in the schoolroom. Music is a factor in education. It takes hold of the inmost center of the child, strengthens the individuality, and enriches the mentality. It is for education, not for change or amusement. It strikes to the depth of the child's nature, and touches it as nothing else will do. It interests, awakens, and vitalizes the child through his affections and his emotions.

If we neglect to give the child suitable songs, the happy and beautiful songs, we are depriving him of the privilege of learning to appreciate the best of that wonderful power, Music,—that power so deep and strong, that some say it is an expression of the thought and affection of the angels, and Carlyle says, "It is a kind of inarticulate unfathomable speech which leads to the edge of the infinite."

If we deny the child the privilege of coming under the influence of this power we deny him a way by which may be opened

"The inmost center of us all,
Where Truth abides in fullness."

"If proper training is begun before the voice is spoiled by bad usage, and before the natural instinct for that which is best has been destroyed or replaced by the vulgar, the common, or the debasing in music, every child is capable of being taught to express spontaneously in song the finer emotions—sympathy and love to his fellow-creatures and love to his Creator.

“ In all undertakings it is best to begin well, and this is particularly true with regard to music. It is impossible to begin too early in childhood to teach that which is pure and high, and to awaken in the child’s nature impulses that will stimulate the growth of worthy aspirations, that no room may be left for weeds.

“ In the selection of songs, therefore, one cannot be too careful, both as to words and music. Go to our best composers and there will be found simple musical airs and suitable words.

“ More pleasure and profit can be derived from the study of a small painting by a master hand than can be found from studying a showy picture by an ordinary individual. So, in most all cases, the simple songs of the good composer are sweeter and more helpful than more pretentious selections from the ordinary musician. It is because the master composer thinks and feels at all times musically, and his slightest expression is full of music, while the ordinary composer catches but a glimpse of the wonderful art, and so his productions fall short of true worth. Therefore, in order that the child may be brought in contact with true music, the songs should be selected from the masters.”

The songs of Country, Home, Nature, and God appeal strongly to the child. Therefore such songs must be selected. They can be found in the following collections: *Children’s Songs*, by Reinecke; *Children’s Songs*, by Abt; *Songs* by Gilchrist; arrangement of *Songs* by Eleanor Smith; *Songs of Child-World*, by Jessie Gaynor; books arranged by Wm. Tomlins; *Children’s Songs*, by Fred Bulard; *Children’s Songs*, by Frederic Root; *Children’s Songs*, by Neidlinger; *Children’s Songs*, by Emerson; and *Children’s Songs* arranged by Max Spicker. Try to teach as many Folk-Songs as possible. Such songs live from generation to generation, and the children should know them.

Be particular as to the manner of presenting a song. It is not always the teacher with the voice who obtains the best results. The teacher who understands the spirit of the song, and who has the power of making the children realize readily the thought of the song, obtains sweet singing from the children.

Some think that many songs should be taught to the children in a year, but no thought is given to the manner in which the songs

are sung. During the first year of school life a dozen good songs rightly taught and sweetly sung are worth much more to a child than numbers of songs carelessly given and thoughtlessly sung. If a song is sung carelessly, the voice is injured; when there is no concentration of the mind while singing, the voice is either harsh or lifeless. The right quality of voice will not come; so the double harm is done.

Aside from the mental and the moral discipline involved, aside from the wonderful power of singing as a restoration for the wearied body, there is one point, practical and peremptory, that must be considered first, last, and all the time, and that is the preservation and cultivation of the voice. No one has a right to injure any part of the child's body. The utmost care must be taken to prevent harsh, loud, or nasal singing, and this can be done only by insisting on the free use of the breath and lips, by pitching the songs rather high, and by the utmost concentration.

Correct habits should be formed in the first grades and insisted upon during school life. During the first year of school life the children should be taught good songs, how to breathe and sing correctly, and they should gain independence in hearing, thinking, and singing tones of the scale.

As the children are promoted they become more proficient in this work, and they are ready to take up the reading of music, as presented by the Natural Music Course.

The success of this course depends upon a most careful and persistent reference from books to charts and from charts to books. Material which seems too difficult without previous chart drill, seems very easy when taken in the proper way. At the end of each page of the charts are notes telling the pages in the books that are to be used in connection with the page of the chart.

Children learn to sing by singing; therefore, as little time as possible should be spent on the technical part of the subject. In this course only one difficulty is presented at a time. Explain each one as it comes. If the children in their singing observe rests, holds, and ties, it is worth more than mere definitions of the same.

2. INSTRUCTIONS TO PRINCIPALS AND TEACHERS.

Principals should see that Music is taught in all the classes. Especially order Chart A for the Third Grade, if the chart is not in the building.

Those teaching singing should be provided with a C-pitch pipe.

The classes that meet together for the singing-lesson, should be provided with the same book, irrespective of grades, so that both note work and songs can be taken together.

Teachers will assemble for instruction in Music at the beginning of each term. Meetings will be held in the Webster School Building at 2:30 P.M. Teachers are to be dismissed so as to reach the building on time. Board rules governing attendance shall apply at these meetings. Teachers will come prepared to take notes, and will bring with them the music-books used in their respective grades and the Course of Study.

NOTICE OF MEETINGS.—Unless otherwise notified meetings will take place as follows:—

First Grade—First Wednesday of each Term.

Second Grade—First Thursday of each Term.

Third Grade—First Friday of each Term.

Fourth Grade—Second Monday of each Term.

Fifth Grade—Second Tuesday of each Term.

Sixth Grade—Second Wednesday of each Term.

Seventh Grade—Second Thursday of each Term.

Eighth Grade—Second Friday of each Term.

Beginning with August, 1900, meetings will be held according to this schedule. Teachers will please take notice.

3. OUTLINE OF INSTRUCTION.

FIRST GRADE.

VOCAL DRILL.—Erect natural position. Free use of breath while singing; free use of the lips. Soft vital tones. Gentle exer-

cises and sustained tones, using vowels and humming. Begin on high tones.

TONES.—Use hand signs. Tones of scale beginning with do-do and gradually adding sol-me-re-ti-fa-la, always combining each one with the tones previously taken. Drill thoroughly on each interval before taking a new one. Scale from different pitches. Intervals with syllables oo, ah, e, o. Dictation. Rhythm. Board exercises selected by Supervisor.

SONGS.—During the year sing sweetly at least twelve good songs pitched high.

SECOND GRADE.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Soft vital tone. Exercises and sustained tones, using vowels and humming. Begin high.

TONES.—Use hand signs. Review intervals of scale in all combination using do, re, etc., and *oo ä*. Scale from different pitches. Dictation. Rhythm. Board Exercises.

SONGS.—By rote. During the year sing sweetly at least ten good songs pitched high.

THIRD GRADE.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Vital tone. Exercises and sustained tones, using vowels and humming.

TONES AND NOTE WORK.—Use vertical scale and hand signs. Review intervals in all combinations, going above and below octave. Simple two-part exercises, with do, re, etc., and with *oo ä*. Rhythm. Dictation. Board Exercises and Chart A.

SONGS.—Sing softly and sweetly good songs pitched high.

FOURTH GRADE.

Natural Music Primer in the hands of the pupils.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Vital tone. Exercises and sustained tones with humming and vowels.

TONES AND NOTE WORK.—Vertical scale. Practice intervals in all combinations (introducing sharp 4, called fi) using syllables and *ō* and *ä*. Study in *Primer* by note, page 6, through 21. Dictation. Rhythm.

SONGS.—By rote or note. *Primer*, Nos. 60, 63, 66, 40, 45, 42, 39, 34. “Annie Laurie,” “Way Down upon the Swanee River.”

FIFTH GRADE.

Natural Music Primer in the hands of the pupils.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Vital tone. Exercises and sustained tones with humming and vowels.

TONES AND NOTE WORK.—Vertical scale; practice intervals in all combinations (introducing sharp 4 and flat 7) and double pointing, using syllables and vowels. Study in *Primer*, pp. 46-59. Dictation. Rhythm.

SONGS.—By rote or note. *Primer*, Nos. 59, 61, 65, 29, 32, 35, 44, and 58. “Home, Sweet Home,” “Old Oaken Bucket.”

SIXTH GRADE.

Natural Music Reader, No. 2 in the hands of the pupils.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Vital tone. Exercises and sustained tones with humming and vowels.

TONES AND NOTE WORK.—Vertical scale, one and two parts with syllables and vowels. Flat 7, sharp 4 and 5. Rhythm. Dictation. Normal minor scale. Study through page 14 of *Reader No. 2*, and Nos. 2, 11, 5, 6, and 8 of *Reader No. 2* by note.

SONGS.—By rote or note. Nos. 74, 73, 76. "The Harp That Once through Tara's Halls." and "My Old Kentucky Home."

SEVENTH GRADE.

Natural Music Reader, No. 2 in the hands of pupils.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Vital tone. Exercises and sustained tones with humming and vowels.

TONES AND NOTE WORK.—Vertical scale, with one and two parts with syllables and vowels. Sharp 2, 4, 5, and flat 7. Rhythm. Normal minor scale. Dictation. Study by note in *Reader No. 2*. Nos. 50, 47, 40, 39, 27, 41, 63, 37, 28, and 35.

SONGS.—By rote or note. "Auld Lang Syne," "Blue Bells of Scotland," "The Last Rose of Summer."

EIGHTH GRADE.

Natural Music Reader, No. 4, in the hands of the pupils.

VOCAL DRILL.—Erect natural position. Free use of breath and lips while singing. Vital tone. Exercises and sustained tones, with humming and vowels.

TONES AND NOTE WORK.—Vertical scale, one and two parts, with syllables and vowels. Harmonic minor scale. Sharp 4, 1, 2, 5, and flat 7. Study by note. Nos. 6, 15, 10, 21, 5, 33, 17, 23, 14, and 9.

SONGS.—By rote or note. "Watch on the Rhine," "God Ever Glorious."

Pupils should be able to sing at sight simple three part exercises and songs.

X. VERTICAL WRITING, INCLUDING BOOKKEEPING.

1. INTRODUCTION.

Vertical Writing is to be used by the teacher in all school work. Care should be taken always to place before the pupils as perfect an example of writing as possible. In the Primary Grades copies of the letters should be on the blackboard, so that pupils may see them at any time.

During the first four or five grades give frequent drill in writing with chalk on the blackboard, the pupils writing large and making only a few letters or a word at a time. The teacher should give intelligent and helpful criticism of the forms of the letters, the slope, relative size of letters, etc. Also arm and finger exercises, involving the use of both hands, should be given on the blackboard.

Care should be taken that all the work in Writing, particularly in the Primary Grades, be neatly and carefully done. A bad habit, formed in the early grades, is likely to show through life. The work in a copy-book is but a small part of the work in Writing. It represents the drill part, and the work of the school should be the application. Letters, written spelling, business forms, and compositions are places for the application of the principles learned. Principals and teachers should try to maintain a good standard throughout the different grades.

The receipt of papers in June, 1899, revealed uniform and perfect vertical writing throughout some schools, even including the Ninth Grades.

Preceding the lesson in Writing, five minutes' practice should be given on right and left ovals, and other exercises usually found on

the inside covers of writing-books. To cultivate speed as well as correct principles, graceful forms, and legibility, the letter or business form to Principal on report days should be accompanied by a copy done in, at first, three-quarters, and finally, half the time.

2. OUTLINE OF INSTRUCTION.

Observe the following schedule, and until further notice, use Ginn's *Vertical Round Hand Writing Books*.

FIRST GRADE.

Writing may be taught in connection with Spelling, or not, according to the teacher's preference. Faults in writing, however, must be corrected by means of separate exercises and drills. In these drills the names of the letters are frequently mentioned, and the children become unconsciously familiar with these names; but, as they are never mentioned in spelling or reading, the children never think of them in this connection, and no confusion ensues.

Give drill in copying and writing from dictation. Insist on neatness. Try to get good forms established. In this grade insist upon large writing.

SECOND GRADE.—Book I.

THIRD GRADE.—Book II.

FOURTH GRADE.—Book III.

FIFTH GRADE.—Book V.

SIXTH GRADE.—Book VI.

SEVENTH GRADE.—Book VII.

BUSINESS FORMS.—Give supplemental work in connection with the review of Bills and Accounts in Arithmetic. Explain the principles involved in keeping a cash-book, ledger, making bills, notes, etc. Have the pupils write a letter ordering goods; make out a bill for the same; write out a draft and a letter inclosing the same in payment of the bill, and a receipt and a letter acknowledging receipt of the draft, and inclosing the receipt.

XI. MANUAL TRAINING.

OUTLINE BY MR. CREE T. WORK, SUPERVISOR OF MANUAL TRAINING.

1. INTRODUCTION.

Manual Training has been adopted as a proper and necessary feature of the curriculum, in recognition of the natural close correlation existing between motor activity and intellectual life. It is a method of education, based on the fundamental nature of the child, to gain ideas that form the basis of thought through the exercise of his senses and other physical organs, in conjunction with intellectual operations, and to express these ideas in terms which are appreciable to the senses. It is a mode of self-activity growing out of that eternal alliance between hand and brain which has led Colonel Parker to make the statement that "Manual Training has done more for the human race than the exercise of any, if not all, of the other modes of expression. It is absolutely indispensable to normal physical development; it has had a mighty influence upon brain-building."

Education is to be regarded as more than a preparation for life. *It is life.* Both the means and the method to be used are indicated by Professor Dewey, when he says that, "All education proceeds by the participation of the individual in the social consciousness of the race," and that "The only true education comes through the stimulation of the child's powers by the demands of the social situations in which he finds himself." As a feature of this social education Manual Training is, or should be, an embodiment of such fundamental forms of social activity as are practicable for the school.

The modified Swedish Sloyd system seems closer to the ideal in this respect than any other form of manual training yet proposed for the Grammar Grades. The Swedish system, as found in the best American schools, will form the foundation of the work for this Department. In detail and application it will be adapted to local conditions.

The equipment provided at this time is for the accommodation of the boys of the Seventh and the Eighth Grades throughout the city, the work to be carried on by special teachers in schools centrally located. The laboratories are well fitted-out with the best modern devices. The work is to be considered as a regular subject of study, an integral part of the system of education. For professional and economic reasons, it is to be conducted by special teachers in especially equipped schoolrooms.

2. OUTLINE OF INSTRUCTION.

SEVENTH GRADE.

MODELS.—A series of models in soft wood will be worked out by the classes. Other materials, as nails, glue, wire, cardboard, cane, etc., will be introduced as occasion may demand. All regular material is provided by the school, the pupils to own their products except in special cases where the teacher wishes to reserve them. That the work may be real to the pupil, the models will consist of such objects as appeal to his interest and provide a wholesome motive.

TOOLS.—Rule, square, rip-saw, back-saw, turning-saw, jack-plane, block-plane, knife, chisel, auger, hammer, and other fundamental wood-working tools will be used. Proper care of the tools will be emphasized, with instruction in whetting the simplest edged tools.

INSTRUCTION.—Class instruction will be an essential feature of the work. This will be supplemented by such individual instruction as conditions may require. An important aim of the teacher will be to inspire self-help in the pupil.

OTHER FEATURES.—The production and the use of working drawings will be taught as supplemental to the mechanical drawing in the regular drawing course, in cases where special necessity may require it. Working sketches prominent. Original work will be encouraged. Invention and modification of models permitted, subject to the approval of the teacher. Spontaneous effort on the part of the pupil is both a compliment and an opportunity for the teacher.

Apparatus, devices, etc., that are useful to the pupil in other departments of the school may be included in the list of models, thus affording closer correlation of the manual work with other parts of the curriculum.

Observation of manual occupations and mechanical devices to be encouraged. Short talks will be given about sources and preparations of various materials used. Stories of industry and invention will form an interesting part of the Course. Pupils and teacher will make collection of pictures and samples illustrative of facts, materials, and processes related to the work.

Correlation of the work with other subjects must be borne in mind. Manual Training affords many opportunities for emphasizing and applying facts and principles in Drawing, Arithmetic, Geometry, Botany, Physics, Geography, etc.

EIGHTH GRADE.

MODELS.—A series of models will be worked out, involving different kinds of wood, nails, glue, wire, and such other materials as may seem appropriate.

TOOLS.—In addition to the tools used in the Seventh Grade, the smoothing-plane, simple carving-tools, screw-driver, miter-box, etc., will be introduced. Thirty or more different tools may be used by the pupils in the work of this grade. The use of the grindstone may be taught here.

INSTRUCTION.—Both class and individual methods of instruction will be used, according to the size of the class and the discretion of the teacher.

OTHER FEATURES.—The work will be similar to that of the Seventh Grade, but more extended, including familiarity with practical mechanical terms, devices, etc.

Encouragement will be given in making home collection of tools, and in keeping notes and clippings pertaining to invention and mechanical and industrial progress.

A visit to the Polytechnic High School, and, if practicable, to a few centers of industry which are illustrative of a variety of skilled labor, will form part of the observation work.

Teachers will keep in mind a constant recognition of Colonel Parker's doctrine, that "Helplessness is the product of too much help." In this connection, pure dictation and imitation are to be minimized, and investigation and originality encouraged.

Correlation in this grade may be especially promoted by the regular teacher in the History class. Such topics as life, travel, invention, and industry, transportation, economic development, etc., afford many opportunities for the teacher to co-operate with the Manual Training instructor in emphasizing the important and honorable position of intelligent hand-labor among the forces that make nations and give them their power. In many ways it is possible for the regular teacher to contribute toward the interest and the success of Manual Training, while at the same time broadening and strengthening her own work. Likewise the efforts of the Manual Training teacher should supplement much of the work in other departments of the school.

XII. SEWING.

1. TIME AND ARRANGEMENT OF WORK.

The Course of Study here suggested has been prepared not that a few may learn to make elaborate garments, but that all of the girls in certain grades may be taught to do plain sewing neatly and well. Careful training in the use of the needle should form part of the education of every girl, since to its usefulness both pleasure and refinement are added by such training.

Sewing will be taken up in the Fourth Grade and continued through the Seventh Grade, or until lessons in Cookery begin. In each grade devote one hour per week to the work. In making out programs, the sewing-time should be so arranged that it will be possible for any two teachers of the same grade, or of grades but a year apart, to unite their classes during the sewing-hour, all of the girls passing to one room and all of the boys to the other. Where men are in charge of classes, they should take the boys and send the girls to women teachers for sewing. In the Seventh Grade Sewing should take place while the boys are at Manual Training.

Principals are intrusted with the supervision of this work, but the success of it depends upon the teachers, and it is earnestly hoped that they will enter into it with the same spirit and faithfulness that they give to other work. The teacher who can not sew neatly will surely find enjoyment in the learning.

It is not expected that the whole work set down for any grade will be accomplished the first year of its introduction, nor that all shall do exactly the same kind or quantity of work. The matter of improving in quality and quantity of work will come with time.

2. SPECIAL INSTRUCTIONS.

1. Backward or careless pupils should be "conditioned," and required to present extra bits of work done at home, until the teacher is satisfied that such pupils are prepared to take up the next step.

2. In all grades teach use of scissors. It is not necessary for each child to have a pair, but it is very desirable to have good ones. One set can be used by several classes.

3. While teaching certain stitches, talk about the use to be made of them.

4. In all grades explain, as they present themselves, straight selvage, bias, etc.

5. Careful basting should always be insisted upon.

6. Insist on clean hands before beginning the work.

7. Be careful not to do fine detail work in the lower grades, as it is more likely to do injury than good.

3. MATERIALS.

Muslin, thread, needles, thimbles, scissors, etc., as suggested by Principal or Teachers.

4. OUTLINE OF INSTRUCTIONS.

FOURTH GRADE.

Use bits of unbleached muslin, 5 x 8 inches in size. Teach basting, running, and overcasting. Make patchwork, using these three stitches.

Hemming, broad and narrow; latter part of year make clothes-bags or pillow-slips.

FIFTH GRADE.

Hemming, patching, backstitching, felling, button sewing, and button-holes begun; but excellence not expected. Outline-stitch for recreation work.

SIXTH GRADE.

Teach binding, gathering, and putting on of bands; patching, felling, darning, and button-holes. Make aprons. Hem-stitching for recreation.

SEVENTH GRADE.

Teach how to put on bands. Teach tucking, darning, making and working button-holes, and feather-stitch. Teach how to bind a dress, and put in dress-pockets and sleeves. Recreation work left to the fancy of the teacher.

During the Second Term pupils should make some simple garment involving the use of what has been learned.

5. REFERENCES.

Johnson, C. F. *Progressive Lessons in Needlework*. (D. C. Heath & Co., 70c.) All teachers of sewing should have a copy of this book.

XIII. DOMESTIC SCIENCE.

OUTLINE BY MISS KATE WHITTAKER, SUPERVISOR OF DOMESTIC SCIENCE.

OUTLINE OF INSTRUCTION.

EIGHTH GRADE.

One lesson per week, to be given by special teachers in school-rooms especially equipped for the purpose. Each lesson will be one hour long. Intended for girls.

The instruction will include a knowledge of food principles; cooking in all the elementary branches; how to buy and use food to the best advantage; care and cleaning of utensils; care of food, serving, setting tables, management of stoves, etc.

The art of Cookery will be taught by the most modern methods, and will be supplemented by simple experiments in Chemistry and Physics, demonstrating the "Why" as well as the "How," thus making the work all round and intelligent.

The course, consisting of forty lessons, will begin by a lesson on making fires, managing stoves, naming of utensils, and a talk on fuels, light, heat, etc.

From the simplest form of cookery, illustrated by baked potatoes, the pupils will advance, step by step, until they have acquired a knowledge of the cookery of vegetables, soups, cereals, eggs, cheese, milk, meats, batters, bread, fish, cakes, salads, puddings, pastry, invalid cookery, delicate dishes for convalescents, and beverages.

Economy, exactness, and cleanliness will be the rule throughout,

and the teaching will aim to lead the pupil to feel the dignity of skilled manual labor, and the especial importance of a knowledge of domestic science to rich and poor alike.

The course will also give a knowledge of the preparation and the relative values of raw materials, and some ideas as to the nutritive values of different kinds of food and how to live economically and at the same time have a good wholesome diet.

XIV. CONDUCT.

(MANNERS AND MORALS.)

1. INTRODUCTION.

This subject does not need a set time in any grade. Better results can be gotten by bringing in the topics at what seem to be appropriate times rather than by giving set talks at a stated time. Such work, to be valuable, must not be given in the form of preaching. Children resent moral lectures, but accept easily that which comes as a natural emanation from the life of the school and the spirit of the teacher. The important thing in moral teaching is that the teacher should be, first of all, an example of what she wishes to teach; that she be fully conscious of the transcendent importance of the subject; that she use the many opportunities of the school life and the school studies to enforce the principles she is trying to teach; and that she keep the ideas she wishes to teach before her own mind constantly. Keeping these moral principles constantly in mind does not mean constantly hammering on them. Great tact must be used by teachers that the approach to the subjects be such as will make a lasting impression. Opportune moments must be used, and, so far as possible, pupils be led to formulate moral truths for themselves. There certainly are times, particularly in the primary years, when a moral talk is valuable; but it should be at a time when the school or the lesson has presented an opportunity that will make a talk of a moral nature of lasting value. To illustrate, suppose the class is studying "The Building of the Ship," and the lines

"For his heart was in his work, and the heart
Giveth grace unto every Art,"

are read. The teacher should ask questions to bring out the meaning of the lines and lead the pupils to formulate the great life-principle that one's heart *must* be in his work if the work is to be lifted above the level of drudgery and one is to achieve any great measure of success in life. The manner in which the class responds will determine whether or not the time is opportune to drive home and clinch the thought which has been formulated, by pointing out what drudgery brick-laying, clerking in a store, printing, or doing some one piece of work in a factory would become, unless one's heart is in the work; that the man who tries to lay each brick better or do a neater job of printing each time, is happier than the man who does not, that his labor is worth more, and that only he is worth promoting. If the time does not seem opportune, pass it by and wait for the next opportunity; but the thought should be constantly before the mind of the teacher though concealed from the pupils.

Moral instruction, by which we mean preparation for proper living in community relations with others and being true to the highest moral principles that one knows, is the most important subject taught in any school; but it should be taught only to a very limited extent as a subject by itself. In teaching History, Civil Government, Literature, and Geography, the teacher has almost unlimited opportunities for moral instruction.

It should be remembered that the psychology of suggestion and the formation of habits are the two great principles involved in moral instruction. The power of evil suggestion is readily recognized, but the power of suggestion for good which a teacher can give by her personality and by keeping the moral aim constantly before her while teaching the great truths of History and Literature and Science is often underestimated or forgotten. Again in teaching morals as in teaching the use of proper English, the only way effective instruction can be given is gradually to form habits, and moral habits are the result of right thinking and of forming proper moral conclusions.

The following outline of suggestions for instruction is copied almost entirely from the recently published Course of Study for the Alameda (Cal.) Schools, by the kind permission of Mr. Charles C.

Hughes, City Superintendent of Schools. A few additions have been made to the original outline.

2. OUTLINE OF SUGGESTIONS.

FIRST GRADE.

Talks and Readings. Endeavor to awaken the moral sense in all pupils; to lead them to distinguish right from wrong; to be truthful, honest, kind, and gentle. Correlate this work closely with Nature Study, Geography, History, Literature, etc. Children imitate; hence the teacher's attitude gives character to the schoolroom. The best example of cheerfulness, truthfulness, politeness, neatness, keeping of promises, punctuality, language, and voice should be before them. Teach them how and when to remove the cap; how and when to bow and say, "Excuse (or pardon) me," and "I thank you." Teach pupils that it is their duty to love and obey parents; to speak kindly of them as well as to them; to obey the instructions of the teacher; to be gentle and kind to all playmates and the lower animals. Form Bands of Mercy. Tell or read stories to show the importance of such conduct. The deepest respect for the aged should be cultivated.

SECOND GRADE.

(Read First Grade suggestions.) Insist on perfect manners in the schoolroom. Instruct and train pupils to be kind to younger children and to protect and defend them when ill-treated; to regard the poor, the sick, and the crippled; to help the aged and the blind. Teach kindness to dumb animals. Form Bands of Mercy. Teach unselfishness. Teach forms of politeness to be observed at school, at home, in public places, and on the streets. Cultivate, by reading short selections, reverence for God. Talk to pupils about correct habits, choice language, and personal appearance. Teach them the importance of taking care of their own books, clothing and other

property, and to avoid injuring property belonging to others. Teach importance of cultivating habits of promptness and faithfulness in performing required duties. Train by example.

THIRD GRADE.

(Refer to previous grades.) To explain what is meant by unselfishness, honesty, gratitude, true courage, and patriotism, read or tell stories of great men who possessed excellent virtues. Talk to them about proper behavior at home, in presence of company, at school, at church, or any other place where people assemble. Teach them the proper way to show appreciation; show them the vulgarity of whistling and stamping the feet. Teach proper care of school furniture, books, and all other property of the Department. Reverence, obedience to authority, sympathy for the unfortunate and afflicted, and kindness to companions and to dumb animals should be taught. Form Bands of Mercy.

FOURTH GRADE.

Show the influence which one person may have with others by being polite, courteous, and accommodating. Show how much success in life depends upon these qualities. Emphasize by stories, readings, and maxims, honor, self-control, economy, love of home, willingness to assist those in need, the value of a good reputation, gratitude, thankfulness, truthfulness, and honesty. Teach the importance of kindness to dumb animals; form Bands of Mercy. Discuss courteous bearing, staring at or speaking of defects or infirmities, treatment of accidents or mistakes, attention in conversation, attention to reading or music, looking over another's shoulder, contradicting statements, courtesy to opposite sex. Teach that it is honorable to confess a wrong, when once committed. Instruct as to conduct on the street and at public gatherings. Explain evil effects to character and advancement of intemperance, profanity, falsehood, slander, tale-bearing, anger, selfishness, taking another's property. Cultivate a love of beautiful pictures and flowers. (See outlines for previous grades.)

FIFTH GRADE.

(Review subjects of previous grades.) Show the advantage of reading good books. Discuss forgiveness, apology, discipline, temperance, courage, duty. Endeavor to create high aspirations, through talks, readings, selections to be memorized, and maxims. Give special attention in this grade to good manners. Endeavor to make the schoolroom beautiful—pleasant surroundings have an influence for good. Instruct as to behavior in public and at home. Teach the proper manner of showing appreciation and emphasize the vulgarity of whistling and of stamping the feet at entertainments. Give lessons regarding personal cleanliness. Explain what a good name means.

SIXTH GRADE.

(See suggestions of lower grades.) Give lessons on self-control, self-denial, proper use of money, generosity, benevolence, reputation, manliness, and character; the evils of jealousy, slander, envy, hatred, indolence, laziness, profanity, and other improper language. Explain the effects of good and bad habits on character. Instruct as to behavior at public gatherings. Teach kindness to dumb animals by reading from such books as Long's *Wood Folk* (Ginn), Jordan's *Matka and Kotik*, or those by Seton-Thompson. Talk on good manners. Endeavor to create high ideals. Teach importance of giving attention to even the small affairs of life and the happiness of others. Speak of the great influence wielded by those noted for honesty and purity of character.

SEVENTH GRADE.

(See previous grades.) Teach that noble, courageous, and heroic acts may be performed in private as well as in public positions, by the humble citizen as well as by the most illustrious one; and that nobleness of character need not depend upon any special position in life. The use of maxims and literary gems will assist in making these lessons clear. Insist that conduct be courteous and polite. Talk on the proper care of health. Explain public and private

duties. Discuss the vulgarity of showing appreciation by whistling and stamping of feet. Instruct as to behavior on the street. Talk of the many little acts of politeness, opportunities for which are bound to occur constantly.

EIGHTH GRADE.

Closely correlate with Civil Government. (See particularly topics 52, 53, 54, and 55, under History and Civil Government.) Teach the importance of good habits. Explain reputation, honor, self-control, character, self-denial, idle talk, tale-bearing, profanity, slander, slang. Teach respect for old age.

3. REFERENCES.

Teachers will find the following books of especial usefulness in this work:—

Cornegy. *Primer of Ethics*.

Everett. *Ethics for Young People*.

Page. *Humane Education*, Parts I- IV.

XV. CALISTHENICS.

To consist of simple exercises to be given by the class teachers. All exercises in Calisthenics should be preceded and accompanied by breathing exercises. Occasionally speak to pupils as to the importance of cleanliness, of breathing pure air, of sitting and standing in a proper manner, and the general care of the health.

Simple calisthenic exercises should be given twice each session in First and Second Grades; once each session in Third, Fourth, and Fifth Grades; and twice each day,—once in the morning and once in the afternoon,—in the Sixth, Seventh, and Eighth Grades. In making the above specifications as to time, it is considered that there are two sessions in the morning and one in the afternoon.

The amount of time to be given to the work should be ten minutes each day for all grades.

BOOKS TO BE BOUGHT BY PUPILS.

(DAY ELEMENTARY SCHOOLS.)

When Bought.	FIRST GRADE.	Price.	Total.
Aug.	State First Reader		\$.20
	SECOND GRADE.		
Aug.	State Second Reader .....	.35	
Aug.	Vertical Writing Book, No. 1. (Shaylor)....	.10	
			<hr/> \$.45
	THIRD GRADE.		
Aug.	State Third Reader (after 1900-1901).....	.50	
Aug.	State Primary Number Lessons.....	.25	
Aug.	State Lessons in Language.....	.30	
Aug.	Vertical Writing Book, No. 2. (Shaylor)....	.10	
			<hr/> \$1.15
	FOURTH GRADE.		
Aug.	State Fourth Reader (after 1901-1902).....	.60	
Aug.	State Elementary Geography .....	.60	
Aug.	Prang's Elementary Course in Art Instruction		
	—Third Year Book .....	.15	
Aug.	Vertical Writing Book, No. 3. (Shaylor)....	.10	
Aug.	Natural Music Primer.....	.30	
*	State Third Reader (During 1900-1901 only)..		
*	State Primary Number Lessons.....		
*	State Lessons in Language.....		
			<hr/> \$1.75

* Bought in a preceding grade.

When Bought.	FIFTH GRADE.	Price.	Total.
Aug.	State Advanced Arithmetic .....	.50	
Jan.	State Revised English Grammar.....	.55	
Aug.	Eggleston's First Book in Am. History.....	.60	
Aug.	Prang's Elementary Course in Art Instruction —Fourth Year Book.....	.15	
Aug.	Vertical Writing Book, No. 5. (Shaylor)....	.10	
Jan.	Webster's Academic Dictionary (Recommended only; not required; \$1.50.).....		
*	State Fourth Reader		
*	State Elementary Geography		
*	Natural Music Primer		
			<hr/>
SIXTH GRADE.			\$1.90
Aug.	State Advanced Geography	1.20	
Aug.	State United States History.....	.80	
Aug.	State Series Speller .....	.30	
Aug.	Natural Music Reader, No. 2.....	.35	
Aug.	Prang's Elementary Course in Art Instruction —Fifth Year Book .....	.15	
Aug.	Vertical Writing Book, No. 6. (Shaylor)....	.10	
Jan.	Hawthorne's Little Daffydowndilly (Riv. Lit. Series, No. 29).....	.15	
*	State Fourth Reader (Until 1902).....		
*	State Advanced Arithmetic		
*	State Revised Grammar		
*	Webster's Academic Dictionary		
			<hr/>
SEVENTH GRADE.			\$3.05
Oct.	Hawthorne's Great Stone Face (5-cent Classic Ser. No. 93) .....	.05	
	(During 1900-1901 only, pupils will also buy Hawthorne's Golden Touch, 5-cent Classic, No. 22.)		
Jan.	Longfellow Leaflets (Riv. Lit. Series, No. 7) ..	.30	
* Bought in a preceding grade.			

Books to be Bought by Pupils.

247

When Bought.	Price.	Total.
Apr. Irving's Essays from the Sketch Book (Riv. Lit. Ser. No. 51).....	.15	
Aug. Prang's Elementary Course in Art Instruction—Sixth Year .....	.20	
Aug. Vertical Writing Book, No. 7, Business Forms. (Shaylor) .....	.10	
* State Fourth Reader (1900-1901 only).....		
* State Advanced Geography		
* State United States History		
* State Series Speller		
* Natural Music Reader, No. 2.....		
* State Advanced Arithmetic		
* State Revised Grammar		
* Webster's Academic Dictionary		

EIGHTH GRADE.

\$.80

Aug. Longfellow's Evangeline (Riv. Lit. Series, No. 1). .....	.15	
Nov. Dickens's Christmas Carol (Riv. Lit. Series, No. 57). .....	.15	
Jan. Whittier's Snow Bound (Riv. Lit. Series, No. 4). .....	.15	
Apr. Bryant's Thanatopsis (5-cent Classic Series, No. 67). .....	.05	
Aug. Prang's Elementary Course in Art Instruction—Seventh Year .....	.20	
Aug. Natural Music Reader, No. 4.....	.35	
* State Advanced Geography		
* State United States History		
* State Series Speller		
* State Advanced Arithmetic		
* State Revised Grammar		
* Webster's Academic Dictionary		

\$ 1.05

Total for the Eight Years..... 10.35

Average cost per year..... 1.29

* Bought in a preceding grade.

SUGGESTED TIME SCHEDULE.

The accompanying time schedule is based upon a consideration of the amount and the difficulty of the subject-matter in the Courses of Study. In schools having normal conditions it will be found to represent about the amount of time each subject will require. More variations may be necessary the first year the new Courses are followed than afterward. It is recommended that the schedule be followed approximately.

Principals and teachers, however, are at liberty to make such variations as may seem necessary to meet the particular conditions of their school or class, though such variations should not exceed twenty per cent.

The unassigned time may be used to extend, slightly, the periods for subjects requiring more time, or for teaching pupils how to study. (See To Principals and Teachers.) In all grades above the Third the time should be used largely for the purpose of training pupils how to study. If desired, instead of having so many minutes each day, the training in how to study may be concentrated in four or three days.

It is to be distinctly understood that the unassigned time must not be used as a rest for teachers or to get materials ready for other recitations, but for the purpose of training pupils, individually or in groups, in proper methods of study; in part only, in extending the time for subjects in which pupils are deficient; or occasionally, as a time for a talk about some book, some great event or heroic act, some point under Conduct, or performing some scientific experiment. The chief purpose of the time, however, is to teach pupils how to study, and it must be so used.

The time indicated for each study is to include distribution of

TIME SCHEDULE FOR DAY ELEMENTARY SCHOOLS.

SUBJECTS.	FIRST GRADE.	SECOND GRADE.	THIRD GRADE.	FOURTH GRADE.	FIFTH GRADE.	SIXTH GRADE.	SEVENTH GRADE.	EIGHTH GRADE.
Opening Exercise.	15 minutes, daily.	10 minutes, daily.	10 minutes, daily.	10 minutes, daily.	10 minutes, daily.	10 minutes, daily.	10 minutes, daily.	10 minutes, daily.
Reading and Literature.	70 min., daily. This to include Phonics. Should be at least two sections.	70 minutes daily. This is to include time for Phonics.	60 minutes, daily. This is to include time for Phonics.	55 minutes, daily. This is to include time for Phonics.	50 minutes, daily. This includes most of the historical reading, such as Eggleston.	40 minutes, 4 days per week.	45 minutes, 3 days per week.	45 minutes, 3 days per week.
History and Civil Government.	To be done under Oral Language and Reading.	To be done under Oral Language, and Reading.	To be done under Oral Language, Reading, and Geography. Occasional talks.	30 minutes per week for special work. Do largely in connection with Geography and Reading.	30 minutes per week for special work. Do largely in connection with Geography & Literature.	40 minutes, 3 days per week.	40 minutes, 4 days per week.	40 minutes, 5 days per week.
Geography.	To be done as Oral Language. May be short talks once or twice a week.	To be done as Oral Language. May be short talks once or twice a week.	80 minutes per week. Divide into three or four lessons.	50 minutes per day. May be changed to 25 minutes, for four days.	25 minutes per day. May be changed to four 30-minute periods.	45 minutes, 3 days per week.	45 minutes, 3 days per week.	45 minutes, 3 days per week.
Language Study.	30 minutes, daily.	30 minutes, daily.	30 minutes, daily.	30 minutes, daily.	35 minutes, daily.	35 minutes, 5 days per week.	35 minutes, 5 days per week.	40 minutes, 5 days per week.
Spelling and Word Analysis.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	75 minutes per week.	75 minutes per week.	50 minutes per week.
Arithmetic, Mental and Written.	To be done in connection with other work, but with occasional talks, after the first quarter.	30 minutes, daily.	40 minutes, daily.	45 minutes, daily.	45 minutes, daily.	45 minutes, daily.	45 minutes, daily.	45 minutes, daily.
Vertical Writing.	20 minutes, daily.	15 minutes, daily.	15 minutes, daily.	15 minutes, daily.	15 minutes, daily.	15 minutes, 3 days per week.	15 minutes, 3 days per week.	
Drawing.	20-minute lessons, three times per week.	20-minute lessons, three times per week.	20-minute lessons, three times per week.	20-minute lessons, three times per week.	30-minute lessons, 2 days per week.	30-minute lessons, 2 days per week.	30-minute lessons, 2 days per week.	30 minutes, 2 days per week.
Music.	15 minutes, daily.	15 minutes, daily.	An average of 60 minutes per week. Singing daily.	60 minutes per week. Some singing daily.	60 minutes per week. Some singing daily.	60 minutes per week. Some singing daily.	60 minutes per week. Some singing daily.	60 minutes per week. Some singing daily.
Nature Study and Hygiene.	50 minutes per week, to be divided into three lessons,—at least one on Hygiene.	50 minutes per week, to be divided into three lessons,—at least one on Hygiene.	25 minutes per week for a lesson in Hygiene. Do Nature Study work under Geography.	50 minutes per week. One lesson each in Hygiene and in Nature Study.	50 minutes per week. One lesson each in Hygiene and in Nature Study.	50 minutes per week. One lesson each in Hygiene and in Nature Study.	50 minutes per week. One lesson each in Hygiene and in Nature Study.	50 minutes per week. One lesson each in Hygiene and in Nature Study.
Manual Training.							1 lesson per week. Boys only. Same time as Sewing.	1 lesson per week. Boys only. At same time as Cooking.
Sewing.				1 lesson per week, of 50 to 60 minutes.	1 lesson of 1 hour, each week.	1 lesson of 1 hour, each week.	1 lesson of 1 hour, each week. Girls only. At same time as Manual Training.	
Cooking.								1 lesson per week. Girls only. At same time as Manual Training.
Calisthenics.	10 minutes daily. Twice each session.	10 minutes, daily. Twice each session.	10 minutes, daily. Once each session.	10 minutes, daily. Once each session.	10 minutes daily. Once each session.	10 minutes, daily. Twice each day.	10 minutes daily. Twice each day.	10 minutes daily. Twice each day.
Conduct.	1 talk per week. Also in connection with other work.	1 talk per week. Also in connection with other work.	Bring in frequently in connection with other subjects.	Bring in frequently in connection with other subjects.	Bring in frequently in connection with other subjects.	Bring in frequently in connection with other subjects.	Bring in frequently in connection with other subjects.	Bring in frequently in connection with other subjects.
Recess.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.	20 minutes, daily.
Total hours of school per week.	21 hrs., 40 min.	21 hrs., 40 min.	22 hrs., 30 min.	25 hrs.	25 hrs.	25 hrs.	25 hrs.	25 hrs.
Total time required each week as per the above schedule.	18 hrs., 5 min.	20 hrs., 10 min.	20 hrs., 50 min.	22 hrs.	22 hrs., 30 min.	23 hrs., 5 min.	23 hrs., 5 min.	23 hrs., 15 min.
Unassigned time each week.	3 hrs., 35 min.	1 hr., 30 min.	1 hr., 40 min.	3 hrs.	2 hrs., 30 min.	1 hr., 55 min.	1 hr., 55 min.	1 hr. 45 min.
Average unassigned time each day.	48 min.	18 min.	20 min.	36 min.	30 min.	23 min.	23 min.	21 min.

material, collection of work and assignment of lessons. There is often great waste of time in doing this, and teachers should plan to do all such work as expeditiously as possible.

The time indicated for recess is to include passing in and out.

In Seventh and Eighth Grades, Sewing or Cooking should come at the same time that the boys are at Manual Training. One hour has been allowed in the calculations, but the boys will require more time than this. Let the girls go on with the regular work after the Sewing or Cooking is over, and arrange the program so that the boys will miss no work in which they particularly need instruction, and expect them to keep up with the girls in work missed.

In carrying out the program, teachers will keep in mind the correlations indicated throughout the Courses of Study. The better the teacher, the less the necessity for marking off the different subjects by minutes. One subject shades into another so that one may teach three or four subjects in a single recitation. To neglect these correlations is the mark of a weak teacher.

Accordingly, much liberty is to be given teachers in making up their programs. The program may differ on different days, and, if necessary to make a program that will fit the school hours and the local conditions, the schedule of times and number of recitations may be changed, though such alterations should involve the least change possible. Uniformity of product is expected rather than uniformity of program.

ADVANCED EIGHTH GRADE.

(AUGUST, 1900, TO JANUARY, 1901, ONLY.)

Pupils promoted in June, 1900, from the Eighth Grade to the Ninth Grammar Grade will take the following work during the Fall Term. Those completing the work creditably will be promoted to the High Schools in January, and those failing will begin work with the Eighth Grades in January, and thus be promoted to the High Schools in June, 1901.

The following is the outline of work for the

FALL TERM.

1. READING AND LITERATURE.—Study Whittier's *Snow Bound* first; follow this by the study of Dickens's *Christmas Carol*. (See Eighth Grade Outlines under Reading and Literature Course.) Selections to be memorized. Selections to be read to the Class, and Home Reading as for Eighth Grade.

2. HISTORY AND CIVIL GOVERNMENT.—Begin at topic 37 and take to topic 43, inclusive, following outlines for History as given under Eighth Grade. Go as much further than topic 43 as can be done well. Follow the plan of instruction indicated under the History Course. Work not completed by January will be continued in the High School by those who are promoted.

3. GEOGRAPHY. —Pupils promoted to this grade have studied United States twice from the larger text, but have not studied the foreign countries, pages 92-139. Cover these pages this term, following, so far as possible, outline for Seventh Grade work.

4. LANGUAGE STUDY.—Follow outline for Spring Term of Eighth Grade. (See Language Course.)

5. SPELLING AND WORD ANALYSIS.—Begin at lesson 303 and follow Eighth Grade Outlines, going as far as can be done well. Follow the same directions as for Eighth Grade.

6. ARITHMETIC.—Make whatever review may seem necessary, and begin at page 221 of the State Advanced Arithmetic and complete the book, following the outline of work and omitting subjects as indicated under Eighth Grade Outlines.

7. DRAWING.—Prang's Elementary Course in Art Instruction, Eighth Year book. Same method and time as for Eighth Grade.

8. MUSIC.—Continue work from the Eighth Grade, under direction of the special Supervisor. In absence of any further directions follow the Ninth Grade Outlines of the December, 1899, Course of Study.

9. CONDUCT.—(See Eighth Grade Outlines.) Concentrate the work along the line of conduct in the city and State,—or Civil Government.

10. CALISTHENICS.—Simple exercises twice daily. Ten minutes per day.

COURSES OF STUDY

• • • FOR THE • • •

EVENING ELEMENTARY SCHOOLS

READING AND LITERATURE.

1. INTRODUCTION.

Teachers of Reading in Evening Schools will read the Introduction to the course in the same subject outlined for Day Schools, and follow the suggestions as to methods of instruction and purpose of the work which are given there, so far as it is possible to do so in Evening Schools.

It is very important that teachers of Evening Schools do all in their power to cultivate a love for good literature and form a taste for good books. As fast as the pupils acquire mastery of the tool, they should apply it to the reading of something which will fix a permanent interest. This a school Reader, made for drill work, can hardly do, so teachers must do what they can, by reading good literature to the pupils and by using selections for memorizing, to awaken an interest in good books.

To this end teachers should read to the pupils, at least once in two or three weeks, some short selection from choice literature, and should so read it that it will convey to the pupils as much of the author's thought and spirit as possible. Teachers should draw their selections very largely from the List of Selections to be Read to the Pupils, given under the outline for Reading and Literature for Day Schools, and should follow carefully the suggestions given there as to the use of the selections. Ninth Grade teachers may use any selections desired. Ernest Seton-Thompson's *Wild Animals I Have Known* is a particularly desirable book from which to read.

Teachers should also use both kinds of selections for memorizing, as indicated under the List of Selections for Memorizing, printed under the outline of Reading and Literature for Day Schools. (See List.) Of the longer selections, at least one should be mem-

orized each Term, selections being made from the List. Of the shorter selections, have pupils memorize a number of short maxims, terse sayings, and gems of thought. Write these on the blackboard and have them copied as a writing-lesson. It will be best to confine these to selections of not more than three or four lines in length, and each week about one such quotation should be placed on the blackboard.

Teachers should also do what is possible to develop a love for good books, and should place on the blackboard the names and library numbers of a few suitable books, and encourage the pupils to form the habit of spending their spare time in reading. (For suggestions see List of Home Reading, published under the outline of Reading and Literature for Day Schools.) The books are graded from one to two years too high for Evening School pupils. Under To Principals and Teachers, read the paragraph on The Free Public Library.

2. OUTLINE OF WORK.

FOURTH GRADE.

State Third Reader in the hands of the pupils. Read the first fifty-eight lessons, omitting lessons 1, 5, 9, 10, 13, 16, 17, 21, 36, and 42. Give vocal drill of the nature indicated on pages xi-xv of the State Fourth Reader, which is to be in the hands of the teacher only. For suggestions as to method and aim, read "Introduction" and "On Teaching Reading" under Day Schools' Course.

Selections to be Read to Pupils, Selections for Memorizing, and suggestions as to Home Reading, as per the Introduction to this course and the Day Schools' Course.

FIFTH GRADE.

State Fourth Reader in the hands of the pupils. Read the first thirty lessons, omitting the selections by Harrison and Bateman on pages 72-73. Learn lesson 31 as a song. Give vocal drill of the nature indicated on pages xi-xv. Read "Introduction" and "On

'Teaching Reading," under Day School Course, for suggestions as to method and aim. Teachers should define and explain all words, but should give much drill in reasoning out the meaning of words from the context.

Selections to be Read to Pupils, Selections for Memorizing, and suggestions as to Home Reading, as per the Introduction to this course, and the Day Schools' Course.

SIXTH GRADE.

State Fourth Reader in the hands of the pupils. Read lessons 65-81. In connection with the work in History have the pupils buy and read Eggleston's *First Book in American History*, using the book both as a reader and as a history, and alternating its use with that of the State Reader.

Give vocal drill of the nature indicated on pages xi-xv. Read "Introduction" and "On Teaching Reading," under Day Schools' Course, for suggestions as to method and aim. In this work teachers should define and explain all words, instead of giving dictionary drill, but there should be much drill in reasoning out the meaning of words from the context.

Selections to be Read to the Pupils, Selections for Memorizing, and suggestions as to Home Reading, as per Introduction to this course, and the Day Schools' Course.

SEVENTH GRADE.

Continue the use of the State Fourth Reader, using lessons 32-64. *During 1900-1901 only*, begin at lesson 76 and complete the book, using such of the supplemental lessons as may seem desirable.

During this year have the pupils buy and read the following books:—Fall Term, Hawthorne's *Great Stone Face* (5-c. Classics, No. 93); Spring Term, Hawthorne's *Golden Touch* (5-c. Classics, No. 22.)

Keep vocal training in mind, as indicated on pages xi-xv of the State Fourth Reader, though the test of the pupil's interpretation should be in vocal reading. Teachers should define and explain

words, where necessary, but should train the pupils to reason out the meaning of a word from the context. Alternate the use of the literary selections with the Reader throughout the year. Use the selections from Hawthorne as literature, and bring out the ethical content of each. Biography of Hawthorne.

For suggestions as to method and aim, read "Introduction," "Suggestions on Teaching Literature," and "On Teaching Reading," under Day Schools' Course.

Selections to be Read to the Pupils, Selections for Memorizing, and suggestions as to Home Reading, as per the Introduction to this course, and the Day Schools' Course.

EIGHTH GRADE.

During this year have the pupils buy and read Irving's *Essays from the Sketch Book* (Riv. Lit. Ser. No. 51). This contains Rip Van Winkle, Legend of Sleepy Hollow, and Philip of Pokanoket. Also have the pupils buy and read *Selections from Longfellow* (5-c. Classics Series, No. 126). Read the Building of the Ship, and at least half of the remaining poems. Biography of Irving and Longfellow. Develop clear articulation, good voice, and intelligent and expressive reading. The test of the pupil's interpretation should be in his vocal reading. Teacher to define and explain words, as above, and read "Suggestions as to Teaching Literature," under Day Schools' Course.

Selections to be Read, to be Memorized, and Home Reading, as per the Introduction to this course, and the Day Schools' Course.

NINTH GRADE.

During this year have the pupils buy and read Longfellow's *Evangeline* (Riv. Lit. Ser. No. 1). Biography and historical sketch. Study this carefully as a piece of literature. See "Suggestions as to Teaching Literature," under Day Schools' Course. Develop clear articulation, good voice, and intelligent and expressive reading. Define and explain words, as above, but give drill in reasoning out meanings from the context.

Selections to be Read, to be Memorized, and Home Reading, as per the Introduction to this course, and the Day Schools' Course.

II. HISTORY AND CIVIL GOVERNMENT.

1. INTRODUCTION.

Teachers of History in Evening Schools should read the Course in History as outlined for Day Schools, and follow the methods and suggestions, so far as they are applicable to Evening School work. The work as planned for Evening Schools should be correlated closely with Reading and Geography.

History, like Literature, is a most important subject. No other studies possess such possibilities for awakening a life interest in books and study and for developing intelligent citizens. But to accomplish this purpose the work must not be concentrated so much upon wars as upon the development of the Nation, and the biographical element must be kept quite prominent. As biography is one of the best of teachers, pupils should be encouraged to read along the biographical line. In Evening Schools as in Day Schools, teachers should try to make the topics stand out vividly before the pupils, and place special emphasis upon the social and industrial development of our Nation from the Revolution to the present.

Throughout the work keep ideas of Civil Government even more prominent than in the Day School work, placing special emphasis upon the duties, the privileges, and the responsibilities of citizens, and the importance of private and public honesty.

2. OUTLINE OF INSTRUCTION.

FOURTH GRADE.

HISTORY.—Do the same work in early American and Local History as is outlined for Fourth Grade for Day School,—topics 1-14. Correlate closely with the Geography of California. As supplemental work, use such of the Local History topics as indicated for Third Grade, under Day Schools, as may seem desirable. Same reference books as under Day Schools.

CIVIL GOVERNMENT.—Same as for Day Schools, topics 1-9. (See Day School Course in History and Civil Government.)

FIFTH GRADE.

HISTORY.—During the first half of the year read to the pupils Pratt's *Story of Columbus*. Use the book both as a story and as a history, reading from it from time to time during the term. Use the story as a basis for Language work, and have the pupils learn the main facts in the life of Columbus. In the same way during the second half of the year, read Moore's *Pilgrims and Puritans*. Draw these books from the centers for distributing supplemental readers for Day Schools. By talks with the pupils reinforce the pictures drawn in the books. Question to bring out the historical facts. Encourage the pupils to read Public Library books along these lines.

CIVIL GOVERNMENT.—Review the topics taught in Fourth Grade and add those indicated for Fifth Grade, under Day Schools' Course.

SIXTH GRADE.

HISTORY.—Pupils to buy and read Eggleston's *First Book in American History*. Carry this along with and supplemental to the Fourth Reader. Use the book both as an elementary history text and as a reader. Bring out and reinforce the pictures drawn in the book.

CIVIL GOVERNMENT.—Review the topics used under Fourth and Fifth Grades, and add

1. Need of schools and teachers.
2. Who true patriots are.
3. Dangerous people.
4. The justice of law.
5. The purpose of Courts; jury trial.
6. The duties of a citizen:
 - (a) To obey the laws and respect authority;
 - (b) To earn an honest living;
 - (c) To be sober and industrious;
 - (d) To be honest and truthful;
 - (e) To pay his taxes;
 - (f) To vote intelligently and honestly.

SEVENTH GRADE.

HISTORY.—State Series History in the hands of the pupils. Study topics 5, 6, 10, 12, 13-16, and 18-23 during the year (see Day Schools' Course). Modify the plan of study indicated for Day Schools so far as may be necessary to adapt the topics to Night School work. Look up the locations on the map. Treat topic 23 very briefly; the result is the important part of the topic. Observe the caution as to teaching wars. (See Day Schools' Course.)

EIGHTH GRADE.

HISTORY.—State Series History in the hands of the pupils. Study topic 24 briefly. Get at the chief causes of the Revolution, but omit many of the sections. Study topic 25. For topic 26 study only sections 274 and 276. Explain what the Declaration of Independence meant and why it was a natural result. Read topics 27-30 from the open book, following the campaigns on the maps. Draw diagrams on the blackboard to illustrate movements. Make the work a lesson in Geography as well as History. Do not spend too much time on topics 27-30. The aim should be to have pupils feel

something of the spirit of the time and get a good general idea of the war, but not to require them to memorize the various unimportant details. A few of the pivotal events should be fixed in mind, but the names of minor commanders, particular terms of surrenders, dates of battles, and other similar facts are not worth remembering. Apply the test of whether or not one would care, or be any the worse for it, if he should forget any of these minor facts. Read "Recitation from a Text Book," under Day Schools' course.

Study topic 31 sufficiently to get an idea of the difficulties presented to the new Nation. Study topic 33 briefly. Study topic 34. Under topic 35 study lack of strength at home (372, 382-383) and growth of the democratic spirit (375, 400, 411-413). All topic numbers refer to Day Schools' Outline for History.

Read the suggestions as to method and aims under the Day Schools' Course, and follow them so far as they may be made applicable to Evening School work. Abbreviate the topics whatever amount is necessary to do the work during the year.

CIVIL GOVERNMENT.—Study as much of topic 32 as is represented in the outline. (See topic.)

NINTH GRADE.

HISTORY.—State Series History in the hands of the pupils. Study topic 37, following this by reading topic 36 from the open book, as per suggestions above under Eighth Grade. Note what is said in Day Schools' Course about the method of teaching the Presidents. Study topic 38, using a map. Study topics 39-42, and 44. Bring in the substance of topic 43 as the study progresses, and without placing much emphasis upon the topic beyond filling out the succession of Presidents on the space on the blackboard, as indicated under Day Schools' Course, and then having these learned. Read topic 45 from the open book, as directed under Eighth Grade. Trace the leading campaigns on a geography or wall map, and omit minor battles. Talk to the pupils about topic 48, and study topics 49 and 50 from Wagner's *Supplement*, in the hands of the teacher.

Read the suggestions as to method and aims under Day Schools' Course and follow them so far as they can be made applicable to the work of Evening Schools. Abbreviate the topics whatever amount may be necessary to do the work and still leave about a month for the Civil Government.

CIVIL GOVERNMENT.—Use topics 51-55, abbreviating them as may seem necessary. Much of this should be in the nature of talks. If teachers feel that better work may be obtained by extending the time for the Civil Government so as to have one lesson a week throughout the Spring Term, the History continuing to the close of the school year, they are at liberty to so arrange their programs.

III. GEOGRAPHY.

Teachers of Geography in Evening Schools should read the whole course in Geography for Day Schools, as the Day Schools' Course contains many suggestions as to methods of teaching and relative importance of subject matter which Evening School teachers will need.

The course in Geography for Evening Schools is based directly on the Day Schools' Course, two years of Evening School work covering about the same ground as one year of Day School. So far as it is possible, Evening School teachers should follow the work indicated there, bearing in mind that the topics need not be treated quite so fully as in Day Schools, and omitting minor details met with in the text.

Particular attention should be given to a close correlation of the work in Geography with that of History and Language.

FOURTH YEAR.

State Elementary Geography in the hands of the pupils. Use pages 5-27 as a reading-book and as a basis for questions which will establish the ideas of direction, the chief forms of land and water, the shape of the Earth, and occupations. Omit Heat, Moisture, Climate, Zones, and paragraph 4 of the questions on page 27. Use a globe and drawings, and dwell on these topics only so long as may seem necessary to get clear ideas. Have the questions on pages 28 and 30-31 answered from the open map.

Next study the State of California as indicated under Fourth Grade, Day Schools' Course. See Day Schools' Course and follow, emphasizing the points indicated to be emphasized there, but omit-

ting such of the work in map modeling and map drawing as may seem necessary. Some map modeling should be done in Evening Schools, however, if pupils are to obtain clear conceptions. Use pages 62-88 as indicated under Day Schools' Course (which see). Also read the Introduction to the Day Schools' Course. Correlate closely with History.

FIFTH GRADE.

State Elementary Geography in the hands of the pupils. Study pages 34-625 North America and the United States. See outline for Fifth Grade, Fall Term, Day Schools' Course, and follow it as a whole. Also read the Introduction to the Course for suggestions as to methods of work. A production map should be made; it will be found easier to get the materials in Night Schools than in Day Schools. In making the map it is not necessary to do all of the work during the class time. Some of the map drawing and modeling may be omitted, if necessary.

Give rapid oral drill, as indicated under Day Schools' Course.

SIXTH GRADE.

State Elementary Geography in the hands of the pupils. Study pages 88-130,—British America, Mexico and West Indies, Central and South America, Europe, Asia, Africa, and Oceania. See outline for Fifth Grade, Fall Term, Day Schools' Course, and follow it closely; also read the Introduction to the Course for suggestions as to methods of work.

Give rapid oral drill, as indicated under Day Schools' Course.

Correlate the History work closely with the Geography by looking up on the map the places mentioned in Eggleston.

SEVENTH GRADE.

State Advanced Geography in the hands of the pupils. See outline for Sixth Grade, Fall and Spring Terms, and study topics 12 and 13 during the year. This will cover pages 52-75. Follow the directions given under Day Schools' Course, reading Introduction as well as Sixth Grade outline.

Give rapid oral drill, as indicated under Day Schools' Course.

EIGHTH GRADE.

After 1900-1901.—State Advanced Geography in the hands of the pupils. See Day Schools' Course, and study topics 1-11, inclusive, and topic 14, as outlined for Sixth Grade. Also study Canada, Mexico, West Indies, and Central America, as outlined under Seventh Grade. Follow the directions given under Sixth and Seventh Grades and in the Introduction as to method and aim and what points to emphasize.

Continue rapid oral drill as indicated under Day Schools' Course.

During 1900-1901 only, do the same work as indicated for Seventh Grade.

NINTH GRADE.

State Advanced Geography in the hands of the pupils. Study South America, Europe, Asia, and Africa, and, if sufficient time remains, Oceania. Read outline for Seventh Grade under Day Schools' Course, and follow directions given there and in the Introduction.

Give rapid oral drill, as indicated under Day Schools' Course.

3. REFERENCES.

Draw from the same Geographical Readers, etc., as indicated under Day Schools' Course.

IV. LANGUAGE STUDY.

The work in Language in Evening Schools should be made much more of a study in the use of good English than a study of the technical parts of Grammar. The ability to speak and write with reasonable accuracy, to spell, capitalize, punctuate, paragraph, and use the proper discrimination as to the use of words is worth much more than a knowledge of the logic of the language. Common-errors of speech should be drilled out, good oral expression developed, and neatness and correctness in writing established as a habit. This requires work in oral and written composition, word discrimination in both Language Study and in Literature, and drill on correct usage until correct usage becomes an established habit, rather than drill on the logical construction of the English language. An analysis of a language should follow, not precede, a study of the language itself, for pupils in Evening Schools the utilitarian and practical part,—that is, the use of the language,—should be the part to receive the greatest emphasis.

The following work has been outlined, with the foregoing ideas in view. It differs from the preceding course in that it throws greater emphasis upon oral and written composition and upon correct usage, and a little less emphasis upon parsing and analysis, though not omitting these subjects.

Teachers of Language in Evening Schools should read the Day Schools' Course. with the Introduction.

FOURTH GRADE.

State Series Lessons in Language in the hands of the pupils. Study the first fifty lessons, using them as may seem necessary to

review and fix points which pupils should have learned before coming to Evening Schools. The order may be varied and the lessons supplemented, as desired.

EXPRESSION.—Give much attention to orderly progression and holding to the main thought. Have pupils talk before the class on the lessons or on some subject bearing on some phase of the work. Watch for common errors in grammar, and try to eradicate them by substitution and the use of correct forms.

Give written exercises based on the oral, but do not expect written expression to be so easy as oral. Aim at neatness and to secure habitual accuracy of form.

SPECIAL FORMS.—Review capitals and punctuation needful in written work. Lead by easy induction to some notion why these forms are used; as, words are capitalized when important by nature or position; punctuation is used to mark a pause in the thought, to set off attention-words, etc.

In addition to the Language Lessons, give short dictations to train in correct use of capitals, punctuations, quotation-marks, common contractions, and forms of speech often misused,—such as “I done,” “had went,” “he come,” etc.

Teach by observation, the use of the apostrophe and the possessive plural. Teach the correct use of pronouns I and me.

WORD TRAINING.—Give drill on the choice of words and simple discriminations in the use of words, such as much, many, few, less; love, like; etc. Try to eliminate bad usage in sentences, such as

I was *terribly* low on the last examination.

I have an *awful* pretty dog.

John is *mad* at Charlie.

We had an *elegant* time at the picnic.

SENTENCE TRAINING.—Use simple examples of declarative, interrogatory, and imperative sentences. Drill on the correct use of words in these.

PARAGRAPHING.—Notice the grouping in the Readers, and develop, by observation and induction, why sentences are grouped together. Give drill in the use of the paragraph, first by dictation, and then originally, using but two paragraphs.

COMPOSITION.—Composition in this grade will fall into the following classes.

1. Oral and written reproductions of stories and reading-lessons.
2. Writing of a few short letters.
3. Short Compositions on subjects assigned. Let these subjects be familiar and interesting, arising from the school work or home interests of the child, and do not expect more than short compositions. Correct and retain, particularly marking mistakes in capitalization, spelling, punctuation, use of quotation-marks, and paragraphing.

STORIES AND POEMS.—See lists of Selections to be Read to the Pupils, Selections to be Memorized, and Home Reading. Use these in connection with Language Study as well as with Literature. Encourage pupils to read for themselves from lists of books which are suitable. Use the selections to be memorized as indicated for Day Schools.

REFERENCES.—Frazee's *Lessons in Language Work* (Whitaker-Ray Co.) will be most useful to teachers of this grade.

FIFTH GRADE.

State Series Lessons in Language in the hands of the pupils. Begin at lesson 50 and complete Part I. Make a grouping of all the material in these lessons by subjects; as, Letters—lessons 60, 64, 68, 73, 79, 80, etc. Then use them as needed, taking up and continuing certain subjects and supplementing as the character and the development of the class require.

EXPRESSION.—Free oral expression more and more from specific exercises, and permit it to range over the widening field of reading and school studies. Give opportunity in every subject for talks on a topic, calling for more than single-sentence expression. Insist upon clearness in statement and definiteness in bringing out the point.

The written work, while more confined to exercises than the oral, should seek freedom in short original essays on paragraph subjects; that is, subjects limited to one phase.

SPECIAL FORMS.—Give dictation exercises of short but model paragraphs for training in the correct use of punctuation, capitals, and spelling. As they are met with, endeavor, by drill on correct forms, to eradicate the common errors of speech. Secure correct use of the forms of the personal pronouns, and drill on the correct use of a number of the common irregular verbs, such as do, sit, set, lie, lay, go, run, etc. Give dictation exercises which are suitable to the grade.

WORD TRAINING.—Give drill in determining the meaning of a word from the context. As wider reading brings the pupils into contact with new words, try to help them to assimilate them. Encourage pupils to keep lists of new words which they have met in reading. Frequently call for these new words; converse about them, and illustrate.

Bring into knowledge some of the more common affixes, but confine this work rigidly to helpful use in determining meaning of words as they arise.

CHOICE OF WORDS.—In oral and written work, discriminate words often misused; as, want, wish; funny, strange; many, much, etc.

Keep up observation upon words, and as opportunity arises call attention to,—

(a) Different meaning of the same word, as in different part of speech.

(b) Different meaning in common application; as, bright, fine

(c) Especially words used in a figurative sense; as, The fountain played. Ask for sentences illustrating different meanings and uses of the same word. Drill on such lessons as 62, 67, 72, 96, etc.

SENTENCE TRAINING.—Continue observations and induction. (See Fourth Grade.) Require clear statements. Avoid long loose statements.

PARAGRAPHING.—The written work leads naturally toward the paragraph. (See Fourth Grade.) Continue to call attention to the progress of the thought or the action from the beginning to the end of a reading-lesson or a simple poem. Observe how some leading idea is brought out.

Develop the paragraph by a further study of good models. Write paragraphs from given topic sentences.

COMPOSITION.—Special attention to letter-writing and paragraph essays. Place paragraph essays on the blackboard for discussion and correction. Give paragraph drill by dividing a subject into a series of paragraph subjects, and then assign one to each pupil for blackboard or seat work.

STORIES AND POEMS, AND REFERENCES.—(See Fourth Grade, above.)

SIXTH GRADE.

State Advanced Grammar in the hands of the pupils. Study the first 23 lessons, Part I, during the year. Supplement by material from other sources.

Take up the same lines of work indicated above for Fifth Grade, and review and extend them.

As well as can be done without the use of a dictionary by the pupils, teach them to discriminate between two meanings of the same word, between the word and its nearest synonym, and between its literal and its figurative use. Continue training in choice of words.

In composition work, ask for oral reports on any books read.

Have oral language work based on Eggleston and on poems memorized and read to the pupils.

In letter-writing, write a friendly letter and letters answering such newspaper advertisements, as the following:

WANTED—Two drug clerks, one with 2 to 4 years' experience, about 20 years old; other must be licentiate; must have good references. Apply J. M. WRIGHT & Co., 508 Market st.

WANTED—An active youth 16 to 21 for dry goods and furnishing business in San Rafael. Apply by letter, A. B. THOMSON, San Rafael, Cal.

WANTED—Fence letterer to accompany camping wagon through California; state experience and pay expected. W. G., box 59, Chronicle.

WANTED—First-class bill or entry clerk; references required. S., box 50, Chronicle.

WANTED—Boy to run Gordon press; give experience. G. G., box 16, Chronicle.

WANTED—Bright boy for office. Address J. M., box 80, Chronicle.

WANTED—Man capable of taking charge of mail order department, getting out of illustrated catalogue and to attend to newspaper advertising; one of largest department stores on Pacific Coast; none but experienced men need apply. Call Monday 12 to 2 P. M. only. CLUETT, PEABODY & CO., 8 Battery st.

WANTED—An expert tent and awning maker to take charge of a small factory out of the city; permanent place and good salary to the right man. Address, giving age, experience and references, P. R. H., care Occidental Hotel.

WANTED—Young man, good penman, with knowledge of typewriting for general office work; salary \$30 per month. S. M., box 106, Chronicle.

COMPOSITION.—Give drill in writing short compositions involving the use of several paragraphs. The essays now begin to involve several paragraphs. This calls for increasing power in the placing together of thought in relation to some subject. This is a critical stage. Do not lose the expression-impulse by too great haste or by strenuous criticism. The preparatory steps are:

1. Continue observation of development of the subject through successive paragraphs in reading-lessons and poems.
2. Write from a full outline analysis prepared by teacher (see Language Lessons, pages 84-88.)
3. Pupils to make a full outline of topics from familiar lessons and poems of this and preceding grades, selecting, too, those dis-

inct in logical divisions. In this grade encourage the pupils to think out an order of points before speaking or writing, but do insist upon having them written out at the head of the essay.

Subjects may be chosen from the whole field of study, but it is vital that they should appeal to the pupil's interest. Sometimes let the pupils suggest subjects. Often give a choice of two or three subjects. Correct these essays as to punctuation, capitalization, paragraphing, spelling, and choice of words, and have them copied and returned.

STORIES AND POEMS, AND REFERENCES.—(See Fourth Grade, work.)

SEVENTH GRADE.

State Revised Grammar in the hands of the pupils. Study lessons 1-24, and, along with them, lessons 101-102, 105-107, and 113. Also, study lessons 27-29, 34, 45-46, 50-51, 54, 57, 63, 67-68, 70, 83-84, and 183-184. Carry out the lines suggested by these lessons, using as many of them as can be studied well.

LITERATURE AND THE STUDY OF POEMS.—In studying poems follow out the lines of work and methods suggested in lessons 7, 45, 46, 57, 63, and 70.

From this grade on lead toward a closer study of the poems. This work has other aims than those usually in view with prose. The imagination should be quickened to picture situations and scenes. The emotions should be enlisted. Poetic language, its use of figures, its finer use of words, its method of suggestion, should gradually grow familiar. This study should never fail to interest. Do not forget occasionally to read a poem to the pupils without making a lesson of it. (See List of Selections to be Read to the Pupils.)

SPECIAL FORMS.—Work for correct usage. Make use of State Grammar Lessons applying here. Use dictation exercises freely.

Following plan of lesson 24, discover the helping-words can, could, may, might, shall, should, do, did.

Teach the principal parts of a number of commonly used irregular verbs, such as bite, break, do, drink, drive, eat, give, go, lie (recline), ring, rise, run, see, sing, strike, take, write. Depend much upon usage and observation.

WORD AND SENTENCE TRAINING.—Continue, in connection with Literature, drill in choice of words. In sentence work, study the simple sentence. Ask questions that require in reply a perception of logical relations. Use sentences occurring in the work in Literature. Occasionally select a few of such sentences for drill on the illustration of certain relations. Increase the difficulties gradually.

This work should be thoroughly and systematically done, covering possible relations within the simple sentence.

Keep this in view through the year. The object is insight into relations, not knowledge of names.

In correction of composition help the pupil to good use of the forms of sentences he is beginning to use. Give special attention to arrangement for clearness.

PARAGRAPHING.—Occasional examination of an excellent model paragraph in reading-book or literature. Continue the paragraph essay upon the blackboard.

COMPOSITION.—Continue oral composition along the lines indicated for the preceding grade.

In written work, have occasional paragraph essay on the blackboard for examination of errors and bettering sentence structure and connection. Writing of social or business letters twice each term. Use, as far as needful, the lines suggested in Sixth Grade, but demand increasingly good work; and require a preparatory outline of a proposed essay, and discuss it for better arrangement of thought. At least half of the time should be given to work involving the use of English, and there should be at least three short compositions each term.

EIGHTH GRADE.

Continue and extend the line of work begun in Seventh Grade, emphasizing the points marked for emphasis there. Review nouns and pronouns by a study of lessons 101-138, giving drill on parsing. Similarly review Adjectives and Adverbs by using lessons 29, 148, 50, 158-159. Study the remaining parts of speech from Part I, drawing upon lessons in Part II for material to illustrate usage or word discrimination, such as lesson 171. Also study lessons 82-100 giving such drill on analysis as is indicated in these lessons.

While studying the parts of speech carry along side by side with the study such work as is outlined for Seventh Grade. Let the greater part of the work continue to be training in the use of English. Same regulations as to drill in the use of English, letters, and compositions as for Seventh Grade.

NINTH GRADE.

Continue and extend the line of work begun in the Seventh Grade. In the Revised Grammar make such review of lessons 101-138, 148, and 158-159 as may seem desirable, and study in advance lessons 139, 142-143, 155-156, 170, 176-177, 179, 191, 193-194, 196, 198-199, 200. Review lessons 82-100 and extend the work somewhat over that done in Eighth Grade, using analysis as a tool. (See Language Course for Day Schools.)

Use the composition lessons in the Grammar as a source of material to draw from in continuing the work in composition, word discrimination, and sentence training, as outlined for Seventh Grade. Same regulations as for Seventh Grade.

DEBATING.—As a culmination of oral expression, each pupil will be expected to participate in one school debate during the year. Teachers are to give the necessary instruction.

V. SPELLING.

Read the Day Schools' Course, including the Introduction, and follow the suggestions given there as to methods of teaching.

FOURTH GRADE.

Select words from the beginning and end of the reading-lessons. Teacher to explain and define words, and illustrate their meaning. Train the pupils to recognize the meaning of a word from the context. Give some drill in constructing sentences involving the use of words.

FIFTH GRADE.

See outline for Fourth Grade. State Speller in the hands of the pupils and study the first fifty lessons. Follow the suggestions given under Sixth Grade, Day Schools' Course, as to the use of these lessons, omitting entirely the written work in use of words.

SIXTH GRADE.

State Speller in the hands of the pupils. Study lessons 51-104. Follow the same plan as indicated for Fifth Grade, and under Sixth Grade for Day Schools. Have occasional spelling lessons based on words in Eggleston or the Reader. Teachers should define, explain, and illustrate the words as they are given out. Give drill in sentence making and defining, selecting from the starred words.

SEVENTH GRADE.

State Speller in the hands of the pupils. Study lessons 105-156. Follow the same plan as outlined for Fifth Grade, and under Sixth Grade for Day Schools. Select words to spell from the literature studied. Teachers should define, explain, and illustrate the words as they are given to the class to learn. Give drill in sentence making and defining, selecting from the starred words.

EIGHTH GRADE.

State Speller in the hands of the pupils. Study the same work as indicated for Spring Term of Seventh Grade, Day Schools' Course, and follow same plan as indicated for Fifth and Seventh Grades.

NINTH GRADE.

State Speller in the hands of the pupils. Give drill on the distinct articulation of lessons 271-298. Study lessons 299-380, omitting 354-359, and only looking up the location of 345-347. Follow the same plan as indicated for preceding grades.

VI. ARITHMETIC.

1. INTRODUCTION.

Teachers of this subject should read the Introduction to the Day Schools' Course in Arithmetic, and all of the outline of instruction for Day Schools, up to and including the grade they are to teach, that they may have a clear idea of the methods, purposes, and points of emphasis of the work.

The point of chief importance in Evening School and in Day School work, is accuracy and rapidity in the use of the four fundamental operations as applied to whole numbers and fractions. There should be constant mental drill on these throughout each grade. In whatever field of work one is engaged the ability to use the four fundamental operations is an essential. After these the next most important subjects are Percentage and Simple Interest, with the common applications to business calculations. These six arithmetical principles should receive the chief emphasis, and there should be drill on them until they are thoroughly mastered, and review drill throughout every grade.

In giving this drill mental work is worth more than written, and small numbers are more useful than large numbers, though written work with large numbers has its place. Particular emphasis should be placed on short, rapid mental drills, given for a few minutes each evening, and of the nature suggested in the Day Schools' Course.

2. OUTLINE OF INSTRUCTION.

FOURTH GRADE.

State Advanced Arithmetic in the hands of the teachers. Teach what is equivalent to the work contained in the first fifty-nine pages, omitting exercises 39-46, 48, 57, 61, 63-64, 66, 73, 76, 78-79, and General Principles of Division. Use similar problems drawn from other text-books. Confine the work to easy problems, and work for accuracy and rapidity. Try to develop accuracy in the use of the four fundamental operations as applied to whole numbers, small fractions, and United States Money.

Give much mental drill in such use of the four fundamental operations.

In connection with the multiplication table teach the resolving of such numbers as 15, 24, 30, and 64 into two factors; as 3 times 5, 4 times 6, 6 times 5, and 8 times 8. Give special drill on exercises, of the type of Ex. 31. (See Fourth Grade Outline in Day Schools' Course.)

FIFTH GRADE.

State Advanced Arithmetic in the hands of the pupils. Use pages 14-59 for such work in the use of the four fundamental operations as may seem desirable, supplementing by problems from other sources. Omit such exercises as indicated in Fourth Grade work. Do as much of the work mentally as possible, and give frequent short and rapid mental drill of the kind indicated under Third, Fourth, and Fifth Grades of Day Schools' Course, and Fourth Grade of Evening School Course. Continue to introduce small fractions along with the whole numbers, and to include fractions in the mental drill work.

Begin the study of Fractions from the text, and take pages 72-87, omitting exercises 96, 101-102, 104-105, 108-111, 113, 116, and 122. Apply fractions to United States Money and commonly used measures, and give mental problems involving their use. Drill on the four fundamental operations as applied to Fractions, using small

denominators. Change fractions to equivalent fractions having a common denominator.

Along with the work in Fractions teach the reading and writing of simple decimal fractions, as indicated under Day Schools' Course for Fifth Grade. Introduce the term "per cent." in the work.

Teachers of this grade should read carefully the Day Schools' Course for Fifth Grade.

SIXTH GRADE.

Review the four fundamental operations as applied to whole numbers, common fractions, and United States Money, as outlined under Fifth Grade. Review Fractions, pages 72-87, and extend by studying pages 87-94 and 102-114, omitting Circulating Decimals, and Contracted Multiplication and Division of Decimals.

Continue mental drill as indicated for previous grades. Give special drill in finding a part of a number when the whole is given, in finding what fraction one number is of another, and in finding the whole when a part is given. (See Day Schools' Course.)

SEVENTH GRADE.

Review the four fundamental operations as applied to whole numbers, fractions and United States Money. Pupils should be able to do accurate and reasonably rapid mental work by the close of this year. Exercises of the Ex. 31 type should be answered instantly and correctly. Give much mental drill of the kind indicated for preceding grades.

Study pages 87-122, omitting exercises 131, 133, all problems on pages 99-102, Circulating Decimals, exercises 159 and 162, and all of the Short Methods of Multiplication and Division, except the first under each.

Much mental drill. (See Day Schools' Course.)

EIGHTH GRADE.

Review the work in Fractions and solve the problems on pages 99-101, omitting problems which are too involved. Careful mental

drill on exercises 137, 139, and 141. Review simple decimals along with common fractions, as indicated under Fifth Grade, Day Schools' Course, and solve the problems on pages 113-114. Under Bills require one bill to be made out and properly receipted, by way of review. Do this in connection with a book of business forms, under Writing. Under Weights and Measures study stone and brick work, lumber measure, carpeting, and plastering; and give mental work and a few easy problems involving the use of long measure, surface measure, liquid measure, avoirdupois measure, and time measure. Study pages 172-179, 185-186, 190-191, exercises 219-220, pages 198-199, and pages 204-210, to Problems. Omit all metric measures, and all subjects not specified.

Perform as much of the work mentally as possible. Use small numbers in the mental work, but aim at accuracy and rapidity. Substitute problems from other sources, if better ones can be found. Do not work all of the problems; as soon as a principle is understood pass to the next subject. Use the mental drill, in part, to review what has been learned. Give mental drill of the kind indicated under Seventh Grade, Day Schools' Course.

NINTH GRADE.

Review and study in advance as follows: Analysis, pages 172-175; Profit and Loss, pages 185-186; Commission, pages 190-191, first ten problems; Insurance, page 195; Taxes, first ten examples; Duties, pages 200-201; Interest, the 60-day 6 per cent. method; Partial Payments, page 215, first five examples; Compound Interest, page 217, first five examples; Discount, page 220; Square Root, page 240; and Mensuration, pages 248-250, problems 3-6 on page 250.

Supplement the problems given in the book by problems from other sources, if necessary. It is not necessary to solve all of the problems under each topic; as soon as the pupils understand the subject omit the remaining problems and pass to the next subject.

Give frequent mental drill on the use of the four fundamental operations as applied to whole numbers and fractions, and give mental drill on the same lines as the written work. Give mental review work. Try to develop rapidity as well as accuracy. (See previous grades, and Day Schools' Course.)

VII. PHYSIOLOGY AND HYGIENE.

Teachers in Night Schools will follow the same course as outlined for Day Schools. (See course in Nature Study and Hygiene, under Day Schools.) Omit the Nature Study part, but follow the Hygiene part from Fourth to Eighth Grade inclusive. Ninth Grade classes will review whatever parts of Sixth, Seventh, and Eighth Grade work may seem desirable, and make a study of the Nervous System, its use, and its abuse.

VIII. VERTICAL WRITING.

(INCLUDING BOOKKEEPING.)

The work of writing in Evening Schools should aim to develop legibility, neatness, and a reasonably rapid speed. The speed, at first slow, should increase with each year. During the Seventh and the Eighth Years the work should be confined, as far as copy-books are concerned, to Business Forms.

In addition to the copy-book work there should be blackboard drill, as indicated under Day Schools' Course, and seat drill on simple movements, using movements which will tend to give flexibility and speed, but not flourishes.

In all written work attention should be given to the writing. Neatness and legibility should be insisted on. Apply lessons in Conduct to care of the writing-book.

Until further notice use Shaylor's Vertical Round-Hand Writing-Books, and the following numbers.

FOURTH GRADE.

Vertical Writing-Book, No. 2.

FIFTH GRADE.

Vertical Writing-book, No. 3. If No. 3 was used last year by any large per cent. of this year's Fifth Grade Class, use No. 4 instead for this year only. No. 4 is purposely omitted, because the copy is smaller than No. 5, and the ruled copies are very trying to the eyes.

SIXTH GRADE.

Vertical Writing-Book, No. 5.

SEVENTH GRADE.

Vertical Writing-Book, No. 6.

EIGHTH GRADE.

Vertical Writing-Book, No. 7. This is a book of Business Forms. Connect these with the review of Bills under Arithmetic, and supplement by additional drill on practice-paper.

NINTH GRADE.

Bryant and Stratton's Common School Course in Bookkeeping in the hands of the teacher only. Use blank paper, and teach single entry set, bills, receipts, notes, and checks.

IX. CONDUCT.

(MANNERS AND MORALS.)

Teachers should keep this subject constantly in mind in teaching the different subjects and in managing the school, but should not give it *a set time* on the program. Occasional talks at opportune moments, however, are to be given from time to time. Teachers should read the Introduction to the Day Schools' Course for suggestions as to the method of presenting this subject, and the Course itself for suggestions as to what to teach.

This is a most important subject for Evening Schools, and Evening School teachers should do all that they can to improve the manners and the morals of the pupils by utilizing the many opportunities of History and Literature and the school life itself to make lasting impressions. While avoiding "preaching," the subject should be kept so constantly in mind that the opportunities of the school may be utilized to their utmost.

FOURTH TO NINTH GRADES.

Read the Day School outline as a whole, and utilize the suggestions which it contains. Gradually develop the work so as to lead from the relations of the pupils to one another, the teacher, and the school, to the larger relations of men and women in society, as expressed in municipal, State, and National Government.

In the Evening Schools place particular emphasis upon politeness,—particularly on the part of those who are in any way public servants,—kindness, truthfulness, punctuality, temperance, industry, energy, cleanliness, self-control, and good citizenship. Teach kindness to dumb animals by reading such a book as *Wild Animals I Have Known*, by Ernest Seton-Thompson, and by bringing out the human element in animal life.

For convenience of work, teachers in Evening Schools should follow, in particular, the Day Schools' outline for the grade next below.

BOOKS TO BE BOUGHT BY PUPILS.

(EVENING ELEMENTARY SCHOOLS.)

When Bought.	FOURTH GRADE.	Price.	Total.
Aug.	State Third Reader.....	.50	
Aug.	State Elementary Geography.....	.60	
Aug.	Vertical Writing Book, No. 2. (Shaylor)....	.10	
Aug.	State Language Lessons.....	.30	
	FIFTH GRADE.		\$1.50
Aug.	State Fourth Reader.....	.60	
Aug.	State Speller .....	.30	
Aug.	State Advanced Arithmetic .....	.50	
Aug.	Vertical Writing Book, No. 3. (Shaylor)....	.10	
	(During 1900-1901 only, No. 4.)		
*	State Elementary Geography.....		
*	State Language Lessons.....		
	SIXTH GRADE.		\$1.50
Aug. or Sept.	Eggleston's First Book in American History .....	.60	
Aug.	Vertical Writing Book, No. 5. (Shaylor)....	.10	
Aug.	State Revised Grammar.....	.55	
*	State Fourth Reader.....		
*	State Elementary Geography.....		
*	State Advanced Arithmetic		
*	State Speller		
			\$1.25

* Bought in a preceding grade.

When Bought.	SEVENTH GRADE.	Price.	Total
Aug.	State Advanced Geography.....	1.20	
Aug.	State United States History.....	.80	
Aug.	Hawthorne's Great Stone Face (5-cent Classics Series, No. 93). ....	.05	
Jan.	Hawthorne's Golden Touch (5-cent Classics Series, No. 22). ....	.05	
Aug.	Vertical Writing Book, No. 6. (Shaylor)....	.10	
*	State Fourth Reader		
*	State Speller		
*	State Advanced Arithmetic		
*	State Revised Grammar		
			<hr/>
EIGHTH GRADE.			\$2.20
Aug.	Irving's Sketch Book (Riv. Lit. Series, No. 51) ..	.15	
Jan.	Selections from Longfellow (5-cent Classics Series, No. 126).....	.05	
Aug.	Vertical Writing Book, No. 7. (Shaylor)....	.10	
	Business Forms. ....	.10	
*	State United States History		
*	State Advanced Geography		
*	State Speller		
*	State Advanced Arithmetic		
			<hr/>
NINTH GRADE.			\$.30
Aug.	Longfellow's Evangeline (Riv. Lit. Series, No. 1). ....	.15	
*	State United States History		
*	State Advanced Geography		
*	State Speller		
*	State Advanced Arithmetic		
			<hr/>
			\$.15
Total cost for the six years.....			6.90
Average cost per year.....			1.15
* Bought in a preceding grade.			

COURSE OF STUDY

· FOR THE · · ·

DAY COMMERCIAL SCHOOL

DAY COMMERCIAL SCHOOL.

The following course is planned to cover but one year. At the close of that time a certificate showing attendance and indicating proficiency will be given to those who satisfactorily complete the work. Those who do not complete the work satisfactorily may return and continue the subjects a second year. A certain speed will be required in both Stenography and Typewriting.

This course may be entered from the Ninth Grade in August, 1900, and from the Eighth Grade in August, 1901, and thereafter.

The following is the outline of work:—

FALL TERM.

1. Business Arithmetic. Two days per week.
2. Bookkeeping—Business practice. Daily.
3. Language study, composition, spelling, punctuation and paragraphing, and commercial correspondence. Three days per week.
4. Spanish. Daily.
5. Penmanship—Plain business hand. Two days per week.
6. Stenography. Daily.
7. Typewriting. Daily.
8. Commercial Geography. Three days per week.

SPRING TERM.

1. Business Arithmetic. Two days per week.
2. Bookkeeping—Business practice. Daily.

3. Language Study—Same as for Fall Term. Three days per week.
4. Spanish. Daily.
5. Penmanship—Plain business hand. Two days per week.
6. Stenography. Daily.
7. Typewriting. Daily.
8. Commercial Law. Three days per week.

COURSES OF STUDY

• • • FOR THE • • •

DAY HIGH SCHOOLS

I. THE LOWELL HIGH SCHOOL.

This course is arranged for four years, upon the basis of twenty recitations per week, of forty-five minutes each. (Although the full number of twenty recitations per week is called for at the beginning, outside preparation is required for not more than fifteen recitations per week in the First Year.)

FIRST YEAR.

(Age at the beginning, 13-14.)

(Particular aims for this year are quick and accurate recollection, correct and vivid reproductive imagination.)

English, 4 periods per week. Extensive reading of narrative and descriptive literature, prose and poetry, giving a wide range in the world; word-study, etymological and contextual; implemental forms and classifications; narrative and descriptive writing.

Latin, 4 periods per week. Simple reading to acquire the largest vocabulary of common words; grammatical forms; simpler and more common rules of syntax; practice in the pronunciation and use of all words acquired.

Science, 3 periods per week. Descriptive work on plants and animals; records of observations broadly made; Physiology.

History, 4 periods per week. Reading and reproduction of selected biographies of ancient history; geography of the Mediter-

ranean basin of western Europe; story of English national life; more detailed study of ancient arts and industries.*

Mathematics, 2 periods. Study of number relations with a view to developing and strengthening the notion of pure number, or ratio; study of the numerical equation; drill in quantitative relations, using general terms as in Algebra; simple algebraic operations.

Drawing, 3 periods per week. Drawing from natural objects, as flowers, etc.; representative drawing, including geometrical models,—shading, grouping, perspective; drawing applied to actual forms—black and white—from casts or models, embracing the study of light and shade.

SECOND YEAR.

(Age at the beginning, 14-15.)

(Particular aims for this year are analytic reflection to place simple forms in the mind and equal accompanying effort in synthesis to apprehend relations; no especial effort to generalize.)

English, 3 periods per week. Systematic course in grammar; sentence analysis, definitions, synonyms; rhetorical, logical and esthetic modes of analysis; summaries, abstracts, essays; grouping of formal units of expression; pieces of literature grouped and related.

Latin, 5 periods per week. Translation both ways; analysis of grammatical forms; word formation; induction to more complex rules of syntax, word-order, sentence and paragraph structure.

Science, 4 periods per week. (Elective with Greek the last half year.) Biology, dissection and cell-study; elementary Chemistry; Mechanics.

*During 1901-1902 classes promoted from Eighth Grade will not have studied United States History after 1812, and the Eighth Grade outline for History (See Day Elementary Schools' Outline) should be followed the First Year.

History, 3 periods per week. Close and analytic study of particular Greek states; military history of the Greeks; building of the Roman Empire.

Mathematics, 4 periods per week. Algebra; introduction to the study of Geometry as a formal subject, to secure familiarity with the language and concepts of Geometry.

Drawing, 1 period per week. Descriptive work as applied in conventional designs, including arrangement, harmony and relation of decoration in various designs, and in use in different industries.

THIRD YEAR.

(Age at the beginning, 15-16.)

(Particular aims for this year are constructive thought, employing judgment and arriving at proof; larger power of generalization.)

English, 3 periods per week (only 2 periods for those taking Greek). Systematic reading; essay work of synthetic, expository and inventive character.

Latin, 4 periods per week. Extensive rapid reading; application of principles in Latin composition.

Science, 5 periods per week (only two periods for those taking Greek). General Physics.

History, 3 periods per week. Roman political development; foundation of modern European states; national beginnings.

Mathematics, 5 periods per week (only 4 for those taking Greek). Geometry, plane and solid; complete Algebra (except for Greek students).

French or German, elective with Science.

Chemistry, elective with Solid Geometry.

FOURTH YEAR.

(Age at the beginning, 16-17.)

(Particular aims for this year are reasoning to find and establish cause; reflection directed inward toward clearer apprehension of self in moral relations; contemplation of moral ideals. With the exception of English and United States History and institutions, all studies are elective, subject to the approval of the Principal.)

English, 4 or 5 periods per week (only 3 periods in the last half year for those taking both Latin and Greek). Theory of clause relations, sentence and paragraph sequence; relation of form to expression; study and comparison of style; motive and character in the drama and the novel; argumentative discourse; study of ideals and ethical contents of masterpieces.

Latin, Greek, French or German, 4 periods per week. (According to previous election or particular needs of pupils.)

Science, 3 or 4 periods per week. Advanced work in Physics; theory. General course for those not taking Science in the third year, or taking it but two periods.

History, 5 periods per week (omitted in the first half year with those taking both Latin and Greek). Selected forms and ideals of the Middle Ages; development of modern Europe, based chiefly upon France and England; history and institutions of the United States.

Mathematics, 3 periods per week (4 periods in first half year for those taking both Latin and Greek). Required of deficient pupils, according to their needs; otherwise this time may be assigned according to the pupil's choice and the advice of teachers. Trigonometry and Analytic Geometry may be chosen; or a course in Instrumental Drawing as Applied Mathematics, to include: (a) geometrical problems, mathematical curves, lettering; (b) descriptive geometry, perspective, isometric perspective, shade and shadows; (c) drawing of simple machine parts from objects; (d) architec-

tural drawing, including the five orders, study of styles, combinations and blending of different styles; (e) history of architectural styles. Greek students will complete Algebra.

SCHEDULE OF RECITATIONS PER WEEK.

YEAR.	I.	II.	III.	IV.
English.....	4	3	3 ¹ or 2 ¹	5 ¹ , 4 ¹ or 3 ¹
Latin.....	4	5	4	(4)
Greek.....	..	4 ⁷	(5)	(4)
French.....	..	..	(5)	(4)
German.....	..	..	(5)	(4)
Science.....	3	4 ⁷	5 ² or 2 ²	3 or 4 ³
History.....	4	3	3	5 ⁴
Mathematics.....	2	4	5 ⁵ or 4 ⁵	3 or 4 ⁶
Drawing.....	3	1		
	20	20	20	20

1. Number of hours dependent upon amount of work in other languages.

2. Pupils taking a modern language for two years will postpone this work until the fourth year; those taking Greek will take Science but two periods.

3. Three hours for those who have had five periods of Science in the Third Year; otherwise four.

4. Elective for half of the year.

5. Elective for a part of the year with Chemistry; but four periods for those taking full Classical Course.

6. Four periods in first half year in full Classical Course.

7. First half year Science and second half Greek in full Classical Course.

II. THE GIRLS' HIGH SCHOOL

AND

III. THE MISSION HIGH SCHOOL.

Two courses are outlined for each school, a Latin Course, and an English-Science Course. Each requires four years for completion. The Latin Course corresponds to the course set forth in detail for the Lowell High School. The English-Science Course differs from the Latin Course in omitting Latin and Greek and requiring German or French, with an opportunity to study both. The work in the different subjects will follow the outline for the Lowell High School, except as otherwise indicated below.

LATIN COURSE.

FIRST YEAR.

English	4	periods.
Latin	4	"
History*	4	"
Science	3	"
Mathematics	2	"
Drawing	3	"

20 periods.

ENGLISH-SCIENCE COURSE.

FIRST YEAR.

English	5	periods.
Science (Botany and Physiography) . . .	5	"
History (Greek and Roman)	5	"
Mathematics	2	"
Drawing	3	"

20 periods.

* During 1900-1902 classes entering from Eighth Grades will complete United States History, following Eighth Grade Outline under Day Schools' Course.

SECOND YEAR.

English	3	periods.
Latin	5	"
Science*	4	"
History	3	"
Mathematics	4	"
Drawing	1	"

20 periods.

SECOND YEAR.

English	5	periods.
Science (Zoology) ..	5	"
History (England) ..	4	"
Mathematics	4	"
Drawing	2	"

20 periods.

THIRD YEAR.

English	3	periods.
Latin	4	"
Science (Physics) ..		
or Greek		
or German		
or French	5	"
History	3	"
Mathematics	5	"

20 periods.

THIRD YEAR.

English	4	periods.
Science (Chemistry) ..	5	"
History (General		
European)	4	"
Mathematics		
or German		
or French	5	"
Drawing	2	"

20 periods.

FOURTH YEAR.

English	4	periods.
Latin		
or Greek		
or German		
or French	4	"
Science (Physics or		
Chemistry)	4	"
History	5	"
Mathematics	3	"

20 periods.

FOURTH YEAR.

English	3	periods.
Science (Physics) ..	5	"
History	5	"
German		
or French	4	"
Mathematics		
or Drawing	3	"

20 periods.

* Elective with Greek the second half of the year.

IV. THE POLYTECHNIC HIGH SCHOOL.

This course is three years in length, and presupposes completion of the Eighth Grade. For the boys the course includes work in wood and metal; for the girls, work in clay-modeling, wood-carving, pen-and-ink sketching, and designing.

Candidates for the colleges of Group III or IV at the University of California may, at the discretion of the Principal, substitute an academic study for the Manual Training work in the Third Year.

The course is as follows:—

FIRST YEAR.

English Language and Literature.....	3	periods	per	week.
English History	3	"	"	"
Algebra	4	"	"	"
Physics (Two double periods for laboratory work and one single period for class demon- stration each week).....	5	"	"	"
German or French.....	4	"	"	"
Drawing	4	"	"	"
Woodwork (Boys) or Industrial Art (Girls) (Two double periods each day).....	10	"	"	"

SECOND YEAR.

English Language and Literature.....	3	periods	per	week.
United States History.....	3	"	"	"
Plane Geometry, and begin Solid.....	4	"	"	"

Chemistry (Two double periods for laboratory work and one single period for class demonstration each week).....	5	"	"	"
Drawing	4	"	"	"
German, or French.....	4	"	"	"
Ironwork (Boys) or Industrial Art (Girls) (Two double periods each day).....	10	"	"	"

THIRD YEAR.

English Language and Literature.....	3	periods	per	week.
American History and Civil Government.....	3	"	"	"
Solid Geometry, Advanced Algebra, and Plane Trigonometry	4	"	"	"
Advanced Physics (Two double periods for laboratory work and one single period for class demonstration each week).....	5	"	"	"
German or French.....	4	"	"	"
Drawing	4	"	"	"
Ironwork (Boys) or Industrial Art (Girls) (Two double periods each day).....	10	"	"	"

COURSES OF STUDY

. . . FOR THE . . .

EVENING HIGH SCHOOL

I. THE HUMBOLDT EVENING HIGH SCHOOL.

1. INTRODUCTION.

The subjects taught in the Evening High School shall embrace English, Mathematics, Physics, Chemistry, History, Civil Government, Latin, Spanish, German, French, Mechanical Drawing, Mechanical and Electrical Engineering, Architecture, Naval Architecture, Decorative Drawing.

The Evening High School courses are arranged for three years, two hours per evening, from 7:15 till 9:15. The work of the first year shall be so arranged as to be complete in itself, and pupils finishing it satisfactorily shall receive a certificate signed by the Superintendent and the President of the Board of Education.

On the satisfactory completion of the Three Years' Course, the student will receive the Evening High School Diploma.

Preparatory Classes are organized to prepare adults for the High School work.

The evening is divided into three periods of forty minutes each, giving three recitations every evening.

2. COURSES OF INSTRUCTION.

The courses offered in the Evening High School are:—

I. SCIENTIFIC.

II. LITERARY.

III. LANGUAGE.

Subjects more or less extended are given in English, History, Mathematics, and Science, according to course. In the Language Course a modern language is added.

(For Drawing Courses see further on.)

FIRST YEAR.

1. *Arithmetic*.—Parts not taken up in Grammar Grades. The Metric System; Mensuration; rapid calculation.
2. *Algebra*.—Through equations of first degree.
3. *Geometry*.—Selected Propositions. Mensuration.
4. *Physics*.—Short course, comprehending the main divisions of Physics, with experiments and laboratory work.
5. *English*.—Grammar and Composition; Rhetoric; Study of standard selections from Literature; Debates.
6. *History*.—General History, Ancient, Medieval, and Modern.
7. *Latin*.—Beginners' Book, Selections from Cæsar.
8. *Spanish, German, or French*.—Substitute for Latin.

SECOND YEAR.

1. *Algebra*.—Review topics of first year; thorough drill in application of principles to problems; Quadratics, Logarithms, Series.
2. *Geometry*.—Plane Geometry, application of Algebra to Geometry. Trigonometry.
3. *Physics*.—First Year's Course extended; Physical and Mechanical Problems; Experiments and Laboratory Work; Short course in elements of Chemistry.
4. *English*.—Composition and Rhetoric; Standard Authors; Essays; Debates.
5. *History*.—American History, with special reference to the development of our National Institutions.

6. *Civil Government*.—Municipal, State, and National affairs; duties of officials and citizens.
7. *Latin*.—Grammar, Composition, Cæsar, Cicero.
8. *Spanish, German, or French*.—A student who takes a modern language as a substitute for the Latin, shall be required to converse freely and write a simple letter in the language at the end of the second year.

THIRD YEAR.

1. *Mathematics*.—Higher Algebra, Solid Geometry, Trigonometry; Application to Mechanics, Surveying, and Navigation; Drafting of Surveyors' and Engineers' Field Notes.
2. *English*.—English, Classics, Essays, Debates, Criticism.
3. *Latin*.—Composition, Cicero, Virgil.
4. *Science*.—Physics, Chemistry, Assaying, Lectures on various Scientific Subjects.

SPECIAL INSTRUCTION.

Special students may be admitted to one or more of the High School studies when the classes are not filled by the regular pupils.

Students conditioned in the Affiliated Colleges may attend the Evening High School to work off their conditions.

Adults preparing for the University may select the subjects requiring their special attention.

Students in Spanish may devote their whole evening to that language.

The Evening High School Glee Club, under the direction of a class teacher, meets for practice twice a week, after school hours.

SUB-JUNIOR CLASSES.

Classes for adults corresponding to the Seventh, Eighth, and Ninth Grades prepare pupils for the Evening High School. Pupils in those classes receive Physics and may take up Latin or one modern language—French, German or Spanish.

FOREIGN CLASSES.

The pupils of the foreign classes are graded according to their knowledge of English, and shall be advanced to the preparatory classes of the High School as soon as their acquirements permit.

ADMISSION TO EVENING HIGH SCHOOL.

Graduates of the Grammar Grades, day or evening, are admitted to the regular courses of the Evening High School without examination.

Regular attendance and gentlemanly deportment shall be required of all students attending the school.

3. DRAWING DEPARTMENT.

The courses offered in this department are designed for students of Mechanical, Electrical and Naval Engineering, and Architecture.

Each course requires at least two full years' work.

A receipt or certificate is given for the work accomplished.

I. MECHANICAL ENGINEERING.

1. DRAWING.—(a) Linear Drawing. (b) Projections and Developments. (c) Sections and Intersections. (d) Progressive work from sketching to designing engineering details, and machinery. Also special advanced work.

2. MATHEMATICS.—(a) Arithmetic, (compulsory for those for whom it is necessary). (b) Applied Arithmetic for all students. (c) Algebra and Geometry; also their application to Engineering.

3. PHYSICS.—Those branches of the subject especially applicable to Engineering.

II. ELECTRICAL ENGINEERING.

1. DRAWING.—As in the Mechanical Engineering Course. Progressive work from Sketching to Designing Electrical machinery. Also special advanced work.

2. MATHEMATICS.—Same as in Mechanical Engineering Course.

3. PHYSICS.—Same as in Mechanical Engineering Course, with special attention to Electro-Physics.

III. CIVIL ENGINEERING.

1. DRAWING.—(Elementary part.)—Same as in Mechanical Engineering Course; Progressive work, from sketching to designing structural work.

2. MATHEMATICS.—Same as in Mechanical Engineering Course.

3. PHYSICS.—Same as in Mechanical Engineering Course.

IV. ARCHITECTURE.

1. DRAWING.—(Elementary part.)—Same as in Mechanical Engineering Course. (d) Shadow Projections. (e) Lettering. (f) Drawing the Orders of Architecture. (g) Floor Planning. (h) Designing of complete building. (i) Detailing. (j) Specifications. (k) Decorative work.

2. MATHEMATICS.—Same as in Mechanical Engineering Course, but with its application to Architecture.

3. PHYSICS.—Same as in Mechanical Engineering Course, with special attention to problems in ventilation, drainage, etc.

V. NAVAL ARCHITECTURE.

1. DRAWING.—(a) (b) (c) same as in Mechanical Engineering Course, with special attention to development of surfaces. (d) Progressive work from sketching to designing ship details. (e) Laying down and designing various kinds of ships. (f) Ship model construction.

2. MATHEMATICS.—Same as in Mechanical Engineering Course.

3. PHYSICS.—Those branches of the subject especially applicable to Naval Architecture.

1720

